

MEDICAL DEPARTMENT, UNITED STATES ARMY

PHYSICAL STANDARDS IN
WORLD WAR II

Prepared and published under the direction of
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The Surgeon General, United States Army

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MEDICAL DEPARTMENT
UNITED STATES ARMY
IN WORLD WAR II

NOTE

This volume was written under the direction of Col. John Boyd Coates, Jr., MC, USA, and Col. Arnold L. Ahnfeldt, MC, USA (Ret.), former Directors and Editors in Chief, The Historical Unit, U.S. Army Medical Service.

ROBERT S. ANDERSON,
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PHYSICAL STANDARDS IN WORLD WAR II

by

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MEDICAL DEPARTMENT, UNITED STATES ARMY

The volumes comprising the official history of the Medical Department of the U.S. Army in World War II are prepared by The Historical Unit, U.S. Army Medical Service, and published under the direction of The Surgeon General, U.S. Army. These volumes are divided into two series: (1) The administrative or operational series; and (2) the professional, or clinical and technical series. This is one of the volumes published in the latter series.

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Foreword

There is no subject more immediately pertinent for military planning than physical standards. An Army is built of men who must be physically and emotionally fit to withstand the rigors and hardships of combat in any part of the world, from steaming jungle or blazing desert to the perpetual ice and snow of the Arctics, and from sandy or rugged coastlines to craggy mountain peaks.

The minimum qualifications will necessarily be established in terms of the number of men required, with due consideration being given to the numbers needed for essential backup roles in industry, agriculture, transportation, and other supporting services. Within this broad framework, however, there is an inescapable factor of judgment, exercised first by those who prepare the standards and second by those who apply the norm to the individual case. Disabling physical conditions are frequently matters of degree and are almost always a function of assignment. The tanker, for example, does not need the sturdy feet of the infantryman. The discriminating hearing required for radio communications is not essential for supply handling or computer programming. Visual defects that would be fatal to a fighter pilot offer no bar to outstanding performance in one of the supply services.

Although the development of physical standards for the guidance of local draft boards was initially the responsibility of the Selective Service System, they were worked out in close association with the U.S. Army Medical Department and were administered by Army medical examining boards. A method of classifying and easily describing physical capacities of individuals procured by the Selective Service was needed to provide for equitable distribution of available manpower among the Armed Forces. For this purpose, a system of physical profiling was devised. At a later stage, men already in the Army were classified under the Physical Profile Serial System according to their capacities for various military assignments.

Not only are the changing standards themselves delineated in this volume of the history of the Medical Department of the United States Army in World War II, but also the evolution of the whole concept of physical standards, as the war made deeper and deeper inroads into our manpower reserves, is explored. Col. William B. Foster, MC, and his collaborators have underlined for us one of the most useful lessons of the war—in total conflict we must call upon our total resources, human as well as material. We must assume, moreover, that in the present era of intercontinental ballistic missiles we shall not have time for the leisurely M-day contemplated in the mobilization plans that preceded World War II. Instantaneous readiness becomes essential for successful response to future combat operations.

It behooves us to be ready with standards flexible enough to fill and to maintain at full strength the ranks of the Armed Forces, at the same time allowing no important supporting service to suffer a critical shortage of personnel. The authors of "Physical Standards in World War II" have given us pertinent and valuable guidelines. To disregard them for the future would be to invite disaster.

LEONARD D. HEATON,
Lieutenant General,
The Surgeon General.

Preface

A history of the U.S. Army Medical Department's role in the development and application of physical standards in World War II has been intermittently in preparation for several years. Many individuals have participated—by research, by writing drafts, by making available firsthand knowledge and experience, and by providing the necessary support services. Those whose contributions were extensive enough to qualify them as coauthors of the present volume are Col. William B. Foster, USA (Ret.), Ida Levin Hellman, M. Sc., Lt. Col. Douglas Hesford, MSC, and Capt. Darrell G. McPherson, MSC. (Colonel Foster, besides being an author of the volume, contributed to the development of the standards themselves, as head of a physical standards subdivision in the Surgeon General's Office during the prewar mobilization period, as a chief of the Physical Standards Branch during the war, and as the senior medical member of the Secretary of War's Separation Board after mid-January 1944. Among his responsibilities in the latter position, Colonel Foster served as the chief adviser on matters pertaining to physical standards.) Also deserving of special mention are Col. Esmond R. Long, MC, who wrote on the tuberculosis problem, and Col. Richard H. Eanes, MC, formerly chief medical officer for the Selective Service System. The manuscript was put into its final form under the immediate direction of Dr. Charles M. Wiltse, Chief Historian, The Historical Unit, U.S. Army Medical Service.

In addition to these various contributors, special thanks are due to the members of the Advisory Editorial Board, who guided the project from its early stages and reviewed its progress at every step; to Col. John Boyd Coates, Jr., MC, Director of The Historical Unit during much of the time that this history was in preparation; and to Lt. Col. William P. Chambers, MSC, who served as project officer at a critical time in the development of the volume. Others who read and commented upon one or more manuscript drafts are Lt. Col. Ivan C. Berlien, MC, Maj. Paul E. Chevey, MC, Col. Santino J. Lerro, MC, Col. John F. Lieberman, MC, Miss Elizabeth McFetridge, M.A., Col. Clark B. Meador, MC, and Col. Raymond W. Waggoner, MC. The contributions of each and all of these are gratefully acknowledged.

Thanks are also due to the successive chiefs of the Special Projects Branch of The Historical Unit, who had large responsibilities in connection with this study. In chronological sequence, these were Col. Charles A. Pendlyshok, MSC, Lt. Col. Matthew Ginalick, MSC, Lt. Col. Douglas Hesford, MSC, Lt. Col. Frederick Bell, Jr., MSC, Lt. Col. Gilbert A. Bishop, MSC, and Lt. Col. Harvey E. Meagher, MSC.

Neither should the services of the General Reference and Research Branch, nor of the Editorial Branch be overlooked. Chiefs of the General Reference and Research Branch who worked on the project were Mrs. Josephine P. Kyle, Mrs. Lucy W. Lazarou, Maj. Albert C. Riggs, Jr., MSC, and Mr. Roderick M. Engert. In the Editorial Branch, Mrs. Marjorie G. Shears, Editor (Printed Media), edited the manuscript, processed the artwork, and prepared the index.

A few words of further explanation are in order here. It will be noted that the reprinting of key regulations as appendixes gives to the volume something approaching a documentary character. Only by including this appendix material has it been possible to effect the degree of compression exhibited in the text. By the same token, however, it is believed that the needs of future mobilization planning will be better served by these documents themselves than by the extensive summaries of their provisions that would otherwise be necessary. As it stands, "Physical Standards in World War II" is compact, succinct, complete for all practical purposes, and it is believed more useful than a more detailed treatment would be.

ROBERT S. ANDERSON,
Colonel, Medical Corps,
Editor in Chief.

Prolog

The influence of physical stamina and mental attitude upon military efficiency has been understood from the most ancient times. In the Old Testament of the Bible, for example, the Book of Judges tells how Gideon selected 300 men from more than 30,000, and how by daring, discipline, and "psychological warfare" this little band of picked warriors defeated a vastly larger force of Midianites. Strength, endurance, and the will to excel also were stressed in the most successful armies of the pre-Roman world—the Persians, the Spartans, and the Macedonians.

The Romans went further still, refining and reducing these qualities to broadly applicable rules. According to Flavius Vegetius, 4th century commentator whose *De Re Militari* was still being studied in 15th century Europe, the ideal soldier should possess "a lively eye," carry his head erect, and be broad of chest with muscular and brawny shoulders. His fingers should be long, his arms powerful, his legs and feet rather "nervous than fleshy." If his waist was small and "his shape easy," his height did not greatly matter to this influential analyst of the art of war. It was of more importance to the Emperor Valentinian I who established 5 feet 7 inches—above average for a Roman—as the most desirable height, a judgment no doubt influenced by Valentinian's own battles against the taller Goths. In age, the Roman soldier was normally between 17 and 45 years, but he might be retained in the service until the age of 65, if the need for troops were urgent.

Physical prowess alone, of course, was not the key to Roman military might; the key lay, as it does today, in organization, discipline, mobility, weapons, tactics, and leadership. Rome remained for a thousand years the world's greatest military power because her armies were variously composed of large or small units, of infantry or cavalry, of light-armed or heavy-armed men, as the circumstances of the individual campaign required; and because the arms at her disposal, ranging from the short, stabbing sword of the infighter to the ingenious catapult for attacking walled cities, were superbly made and excellently used. Strength and stamina were tempered by imagination, knowledge of the enemy, and technological skill.

Roman standards were not improved upon, and seldom equaled, until very near to our own era. The language was less precise but the meaning was the same when the Continental Congress in July of 1775 provided that all able-bodied effective men between 16 and 50 years of age be formed into militia companies. Even more hazy were the standards applied in the Regular Army, where lack of time and rapid shifts of battle made any kind of physical examination almost an impossibility. Men were recruited in most instances

"by a judicious combination of emotionalism, martial psychology, and rum." The fierce desire of the recruiting officers to meet quotas, then as now, overcame their judgment.¹

More successful was Baron von Steuben's handpicked Corps d'Elite. Von Steuben, in the spring of 1777, was an unemployed Prussian captain whose services, despite proven ability of a high order, had been turned down by France, Austria, and the Margrave of Baden. Through the French minister of war, he came to the attention of the American commissioners, Benjamin Franklin, and Silas Deane. The Americans immediately recognized his potential value to their cause but realized also that as a mere captain he would have little impact. Von Steuben proved to be as good an actor as he was a soldier. Sponsored by Franklin and Deane, he arrived in Portsmouth, N.H., with suitable entourage, billed as a lieutenant general in the service of the King of Prussia. He quickly proved his worth at Valley Forge and, with a legitimate commission as a major general in the Continental Army, was appointed Inspector General by Congress at Washington's request. The Corps d'Elite, made up of robust and well-proportioned men of good military bearing, generally between the ages of 20 and 30 years, was one of his innovations. So, too, was the counterbalancing Corps of Invalids, composed of men physically fit only for garrison duty, perhaps the first application of the idea of limited service in this country.²

A set of physical standards for the U.S. Army and Navy was proposed unofficially in 1808 by Dr. Edward Cutbush, whose observations, based on his own experience as a naval surgeon, were tailored to the society in which he lived. He emphasized the necessity for recruiting men free from disease and capable of undergoing "necessary fatigues inseparable from a military life," preferably men from the country who were "generally accustomed to bear the vicissitudes of the weather, to the carrying of burdens," and were "more active and sober" than the city dweller.³

Doctor Cutbush recommended that recruits be inspected by a medical officer. Examination was to establish that the men were apparently sound, with perfect limbs, and were free from ulcers and venereal disease. It was to reveal, also, existence of rupture, the itch, or "scrophula." He felt strongly that those who appeared to be habitual drunkards always should be rejected. "The cost of men of this description to the Government, who are generally subject to swelled and ulcerated legs, besides being for a long time unfit for service, is very considerable." Observing movements of the body and the limbs in various positions was stressed. He subscribed to the view that a "compressed breast," a pale face, and dull eyes were indications of bad health.

¹ Kriedberg, Marvin A., and Henry, Merton G.: *History of Military Mobilization in the United States Army, 1775-1945*. Washington: U.S. Government Printing Office, 1955. (DA Pamphlet 20-212.)

² Faust, Albert B.: *Inspector General Frederick William von Steuben*. Steuben Society of America, 1927. *Encyclopedia Americana*. Americana Corp., New York. Chicago, Washington, 1957, vol. 25, p. 634.

³ Cutbush, Edward: *Observations on the Means of Preserving the Health of Soldiers and Sailors*. Philadelphia: Fry and Kammerer, 1808.

A "constrained gait and bow legs" Dr. Cutbush found contrary to the requirements of military service. Swollen legs showed a disposition to disease, although this symptom might be transient and only the effect of fatigue. Difficulty of respiration, an habitual cough, ulcers, and scars from "the scrophula"—all were reasons for rejection. "The mutilation of noble parts, hernia, obstructions, etc." were described as imperfections rendering a man incapable of military service. Those with blindness in one eye, those lame or hunchbacked, or those with "a disagreeable effluvia arising from his body," fistulous and watery eyes, loss of a part of fingers or toes, "who is a meagre in the extreme," or whose abdomen was very large—all were declared unfit for service. Stuttering likewise was considered a disqualifying imperfection.

In addition to choosing healthy men, Dr. Cutbush subscribed to choosing good-looking men to the extent that "the figure, for the profession of arms, ought not to be defective." Recruits were to be active and courageous and their character and temperament evaluated. The practice of identifying "the lively, quick, and hardy" was recommended as a means of identifying potential heroes.

Although his observations had no official standing, Dr. Cutbush was clearly the inspiration for the first specific regulations governing the examination of recruits, issued as an accompaniment of war in 1814. All "free" (this was the customary language employed to exclude slaves) able-bodied men between the ages of 18 and 35 years who were active and free from disease were welcomed into the Army, but their healthiness had to be demonstrated. Recruiting officers were expressly forbidden to accept any man having "ulcerated legs; scaled head, rupture, or scurvy," who was an habitual drunkard, or was known to have epileptic fits or "other infirmity." An officer enlisting such a man and any surgeon who certified his fitness for service was subject to dismissal. Men being examined were required to strip so that it could be ascertained that they had perfect use of every joint and limb and that there were no tumors, diseased enlargement of bones or joints, sore legs, or rupture.⁴

By 1841, these standards had become somewhat more detailed and included for the first time a mental qualification. Surgeons, Assistant Surgeons, and private physicians examining prospective recruits were directed to—

* * * cause each recruit to be stripped of all his clothes, and to move about and exercise his limbs in their presence, in order to ascertain whether he has the free use of them; that his chest is ample; that his hearing, vision, and speech are perfect; that he has no tumors; ulcerated or extensively cicatrized legs; rupture, chronic cutaneous affection, or other disorder or infirmity, mental or physical, which may render him unfit for the active duties of a soldier, or be the means of introducing disease into the Army; and they will ascertain, as far as practicable, whether the recruit is an habitual drunkard, or subject to convulsions of any kind, or has received any contusions or wounds of the head, which may produce occasional insanity. With any of these defects, the man will be rejected as unfit for service.⁵

The Civil War saw little change in official standards in its early stages. Both sides relied essentially upon the regulations of 1841, but neither followed

⁴ Military Laws and Rules and Regulations for the Army of the United States. Washington: Adjutant General's Office, 1814, pp. 257–258.

⁵ General Regulations for the Army of the United States, 1841.

the standards rigorously. The system broke down completely for the North with the early adoption of the draft. Any man called for service might, if he could afford it, hire a substitute, and apparently there was not even an attempt to apply tests of physical fitness to these mercenaries. The South, relying largely upon volunteers, did nothing until the supply grew scarce. The illness rate was high because examination of recruits was lax, but the response was not to tighten enforcement but to lower standards so far as to admit men blind in one eye, men suffering from functional heart trouble, and even epilepsy. Northern standards, as the war progressed, were not tampered with but were more and more consistently ignored.⁶

The need for physical fitness in officers and enlisted men seems to have become crystallized between the Civil War and the Spanish-American War. While numbers of physically unfit men did enter the Army during the Spanish-American War, this did not occur nearly to the extent that it did during the Civil War. Reasons for this were probably that service was completely voluntary because a lesser number of men were required for military duty and that the procedure of hiring substitutes during the Spanish-American War was eliminated. It is noteworthy that at this time, for the first time in the history of military service in this country, a physical examination was conducted on discharge.⁷

The physical standards of the pre-World War I period, as contained in War Department General Orders No. 66, dated 18 April 1910, were relatively severe. This was derived from the ability of the Army to maintain the authorized strength of the small regular force by voluntary enlistments. Moreover, it was achieved without the necessity of accepting physically undesirable men. At the time the United States entered the First World War in April 1917, no physical standards existed for classifying men who were drafted into the Army. When the Selective Service Act was passed, it was at once apparent that the physical standards in force for the Regular Army must be materially lowered. These standards were found to be prohibitive to obtaining sufficient manpower for rapid expansion of a wartime army. The ability to secure sufficient numbers from age groups liable to the draft was the critical factor.

The first revision of prewar physical standards was prepared by The Surgeon General in early summer of 1917. It was published by the Provost Marshal General on 2 July 1917 as "Regulations Governing Physical Examinations Under the Selective Service Act." It should be noted that these revised standards related to registrants under the draft act only. Higher prewar requirements were still applicable to those applying for voluntary enlistment. Unfortunately, causes for rejection, as stated in these regulations, were of a very general nature with regard to many defects. For example, the only cause for rejection under the heading "mental" was "lack of normal understanding."⁸

⁶ (1) Adams, George W.: *Doctors in Blue*. New York: Henry Schuman, 1941, pp. 11 and 43. (2) Cunningham, Horace H.: *Doctors in Gray*. Baton Rouge, La.: Louisiana State University Press, 1958, pp. 163-165.

⁷ War Department General Orders No. 124, 20 Aug. 1898.

⁸ The Medical Department of the United States Army in the World War. Washington: Government Printing Office, 1923, vol. I, pp. 272-276.

Subsequently, a pamphlet entitled "Instructions for the Physical Examination of Drafted Men at National Army Cantonments" was prepared by The Surgeon General. It was given to all medical officers in camps for their information and guidance. This pamphlet brought together under one cover various memorandums which had been previously issued by The Surgeon General in explanation and interpretation of published physical standards for the draft. It also included instructions and details of procedure to be applied to physical examinations conducted at camps and other military stations as well as a copy of instructions issued by Selective Service to local boards.

The pamphlet reached mobilization camps shortly before the first registrants arrived to receive their final-type examination. Unfortunately, it had not been furnished to examining physicians at local selective service boards. Examining physicians at Army camps, thus, were aware of the criteria used at local boards, while examining physicians at the latter were ignorant of examining criteria used at Army camps.

Standards used by local boards were slightly higher for some defects, lower for others, as compared to standards being used at mobilization camps. For example, Army standards were more rigid in relation to defects of the spine, teeth, lungs, and heart, but less so for the feet and weight requirements. Under mental defects, registrants who showed that they were mentally deficient or had mental disease, including psychopathic personality and psychoneuroses, were to be rejected by camp medical examiners. At the same time, examining physicians at local boards were being guided by the term "lack of normal understanding" as a basis for rejection. It naturally followed, therefore, that many registrants judged acceptable and inducted by local boards were rejected and sent home as unfit by examining physicians at mobilization camps.

A second revision of physical standards for drafted men, published as part VIII of Selective Service Regulations on 8 November 1917, was designed to eliminate these differences. Very few fundamental changes characterized this revision, but it did bring local board standards into line with those used at mobilization camps. It combined certain modifications and changes made since the original publication of 2 July 1917. In addition, certain physical requirements were more clearly defined and made more specific. Most significant, however, was reference for the first time to the class of substandard men later to be taken into the Army for "limited service."

The revision of 8 November 1917 was in effect only for a short period. A subsequent revision, entitled "Revision of Physical Examination Requirements, Selective Service Regulations, Change No. 3," dated 28 January 1918, was written by a board of medical officers appointed by The Surgeon General. A novel feature of this change provided for unconditional acceptance of registrants having "remedial defects." Army hospital facilities and personnel were totally inadequate to accomplish the ensuing wholesale reclamation of unfit men in the midst of war activities. For this reason the third change was not considered a success. Significantly, however, it made it unnecessary for physi-

cians at local selective service boards to make complete examinations of registrants after a disqualifying defect was discovered or after a condition was revealed that necessitated referring the case to medical advisory boards. On 24 February 1918, the "Manual of Instructions for Medical Advisory Boards" (Form 64, Provost Marshal General's Office) was published as a guide for this important function.

Change No. 3 too was soon abandoned and, again, The Surgeon General convened a board of medical officers to compile a workable revision. As a result, many changes were made, and a more thorough and practicable revision was published for immediate implementation. Induction of registrants with "remediable defects" ceased. Instead, they were classified as a "deferred remediable group" and were eligible for call when wanted. Also, with this revision, and for the first time, the same standards were fixed for draftees and for voluntary enlistees. A few minor modifications and changes in these standards were made in the summer of 1918. In general, however, it may be said that this latest revision stood the test of inducting new men into uniform during the months of greatest war activity. Basically, the combination of instructions contained in the "Regulations Governing Physical Examination Under the Selective Service Act" with later revisions, and the "Manual for Instructions for Medical Advisory Boards," constituted the physical standards until the end of World War I, and established a basis for the planning that preceded World War II.

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CHAPTER I

Development and Administration of Physical Standards

HISTORICAL NOTE

Any collection of regulations created to differentiate between various states of physical or mental well-being or capacity and used to determine suitability for acceptance or retention in the Armed Forces may be called physical standards. Such standards are sometimes very simple. When Ethiopia was faced with aggression before World War II, the only physical requirement for the induction of men into the Armed Forces was that they be strong enough to carry arms. Standards become much more complicated in large, modern countries when they are pressed for manpower. For example, in 1944, the U.S. Army would accept for limited service, men with minimum vision of 20/400 in each eye, without glasses, provided this be correctable to 20/40 in one eye and to 20/70 in the other, or 20/30 in one eye and 20/100 in the other, and further provided that the men pass the minimum requirements for all other anatomical parts and conditions of health, set forth in equally complicated combinations and subject in each case to judgment of an examining physician or board (appendix B, p. 161).

The U.S. Army depended on physical standards during World War II to provide the Nation's defense system with the best qualified soldiers from the available supply of manpower. When the Army is small or manpower is plentiful, standards may be very high. It is then possible to require that a person be completely free of almost all physical and mental defects if he is to be accepted into the Army. As the need for men increases in time of war or national crisis, or when the size of the manpower pool decreases, standards for vision, condition of teeth, musculoskeletal defects, and many others must be lowered to allow the induction of an adequate number of men. It is then that the standards must be formulated and administered with greatest care. When standards are low, many people with physical defects will be inducted, but if the standards have been wisely devised and efficiently used, these people should be capable of making valuable contributions to the Army, without risk that they may become medical or financial burdens, or a danger to the health of others.

The Army Medical Service has a three-fold concern with physical standards: (1) Writing the standards to meet the needs of the country, (2) applying the standards during entrance or separation physical examinations, and (3) keeping personnel physically qualified to meet such standards between accept-

ance and separation through the application of modern principles of preventive and curative medicine.

The development of physical standards in the United States has paralleled the increase of knowledge in medicine and the growth of the Armed Forces. Need for the establishment of and the enforcement of standards was recognized as early as the American Revolution. It was emphasized during the Civil War when, partly as a result of inadequate entrance examinations, thousands of unfit soldiers, many of them hired substitutes for draftees, overloaded hospitals and clogged highways. As the country became more democratic, public opinion rejected the use of substitutes, and claims against the Government for disabilities incurred in the service were more often recognized. Physical standards used in induction and in separation examinations then became the basis for decision in claim cases.

The Army had written a complex aggregation of physical standards into its regulations long before the United States became actively involved in World War I, but no adequate method of administering mass inductions into the Armed Forces had yet been devised. The selective service procedures used at that time were born of necessity and were not perpetuated. This experience, however, had reemphasized the importance of physical standards in the medical selection of personnel for the Army in peace or war. Standards were reviewed, organized, incorporated into Army Regulations, and issued after World War I as AR 40-105, "Standards of Physical Examination for Entrance into the Regular Army, National Guard, and Organized Reserves," dated 29 May 1923 and Changes No. 5, dated 17 August 1940; AR 40-100, "Standards of Miscellaneous Physical Examination," dated 16 November 1942; and AR 40-110, "Standards of Physical Examination for Flying," dated 8 December 1942. Over the next decade, they became integral parts of the mobilization plans evolved under authority of the National Defense Act of 1920. (Appendixes C, p. 209; D, p. 249; and E, p. 275.)

Mobilization plans were brought up-to-date late in 1932 with publication by the War Department of MR (Mobilization Regulations) 1-5, "Standards of Physical Examinations During Those Mobilizations for Which Selective Service is Planned," on 5 December. MR 1-5 listed physical defects which an individual might have and whether these defects disqualified him for military service as an enlisted man. The regulation also outlined examination techniques and suggested means of detecting malingerers.

With war visibly approaching in Europe in the late 1930's, mobilization planning in this country assumed a new urgency, culminating in the Selective Training and Service Act of September 1940, the first peacetime draft in the Nation's history. The Surgeon General had anticipated the passage of this Act and its called-for increase in manpower by having new mobilization physical standards prepared. These standards were contained in an updated version of the 1932 Mobilization Regulations, retitled MR 1-9, "Standards of Physical Examination During Mobilization," issued on 31 August 1940 (appendix A, p. 129). The 1940 regulation made provision for advances in medical procedures, but the

physical requirements outlined were still relatively high, based on plans for an Army far smaller than events would soon require.¹

In addition to the new standards for enlisted men, MR 1-9 provided that, in the event of mobilization, AR 40-105, which provided high standards for most enlisted and officer personnel entering the Army before mobilization, was to continue to govern selection of candidates for commission in the Army; AR 40-110 was to continue to apply to commission in the Air Corps; and AR 40-100 was to continue to govern appointment of Army nurses, warrant officers, and candidates for the U.S. Military Academy. At the outset, the provisions of MR 1-9 were applicable equally to both selective service and Army examinations.

ORGANIZATION

The organization back of the creation of physical standards was located in the Surgeon General's Office. In the years preceding World War II, responsibility for administering physical standards was assigned to the Professional Service Division. Before mobilization, all work of this nature was portioned out to subdivisions which had major responsibilities for related areas. Lt. Col. (later Col.) Joseph R. Darnall, MC (fig. 1), had coordinating responsibility for the



FIGURE 1.—Col. Joseph R. Darnall, MC.

¹For an excellent summary of mobilization activities, see Kreidberg, Marvin A., and Henry, Merton G.: *History of Military Mobilization in the United States Army, 1775-1945*, Washington: U.S. Government Printing Office, 1955. (DA Pamphlet 20-212.)

physical standards activity within the division. As the workload increased, physical standards and qualifications for the Regular Army were made the responsibility of one office element of the Preventive Medicine Subdivision, while activity relating to the Reserve Corps was concentrated into a second office element.²

To cope with the intensification and expansion of Reserve and induction activities which came with mobilization, and with the tremendously increased manpower demands as the war progressed, several reorganizations and name changes within the Professional Service Division were instituted (chart 1). As the Army was expanded, physical standards assumed new importance, and personnel assigned to create and refine the standards worked at various times in subdivisions, divisions, and then in branches devoted primarily to physical standards activity. Chiefs of the various elements concerned with physical standards during World War II were Lt. Col. (later Col.) William B. Foster, MC (fig. 2), Lt. Col. (later Col.) Patrick S. Madigan, MC, Lt. Col. (later Col.) James B. Anderson, MC, Col. John F. Lieberman, MC, and Lt. Col. (later Col.) Cornelius E. Gorman, MC (fig. 3). These were the men who had to resolve problems connected with the standards, such as matters of interpretation, application, determination of conditions for waiver, some aspects of claims for disability and other special problem areas. They had to evaluate rejection rates and determine whether problems stemmed from induction and examination procedures or from the standards themselves. Perhaps more important, when the country was faced with manpower shortages, these were the men who had to weigh the numerous factors involved, whether military, medical, administrative or political, before concluding which standards could be lowered and which procedures changed to allow induction of the required number of men. The matter of drafting men with certain disabilities or frailties to perform certain types of limited or special duties was one of the many problems repeatedly coming up. A better estimate of the number and variety of problems facing these men can be ascertained when it is remembered that some 10,420,000 military personnel served in the U.S. Army and Army Air Forces during World War II.³ To acquire this number of people, the Selective Service and the Army had to examine many millions more.⁴

REGULATIONS

Examples of the actual physical standards regulations prepared in the Surgeon General's Office appear in the appendixes to this volume—standards for enlisted men in appendixes A and B (pp. 129, 161), and those for officers and for special categories in appendixes C, D, and E (pp. 209, 249, 259). Other edi-

²For a complete discussion of the organization of the Surgeon General's Office throughout the war period, see Medical Department, United States Army, *Organization and Administration in World War II*. Washington: U.S. Government Printing Office, 1963.

³Williams, Mary H.: *Chronology 1941-1945*. United States Army in World War II. Special Studies. Washington: U.S. Government Printing Office, 1960, p. 551.

⁴Report of Director of Selective Service, 1940-1941, *A Survey of the Selective Service System at Work in Peacetime*, pp. 13-16.

CHART 1.—Typical wartime organization chart, Professional Service, Office of The Surgeon General, August 1942

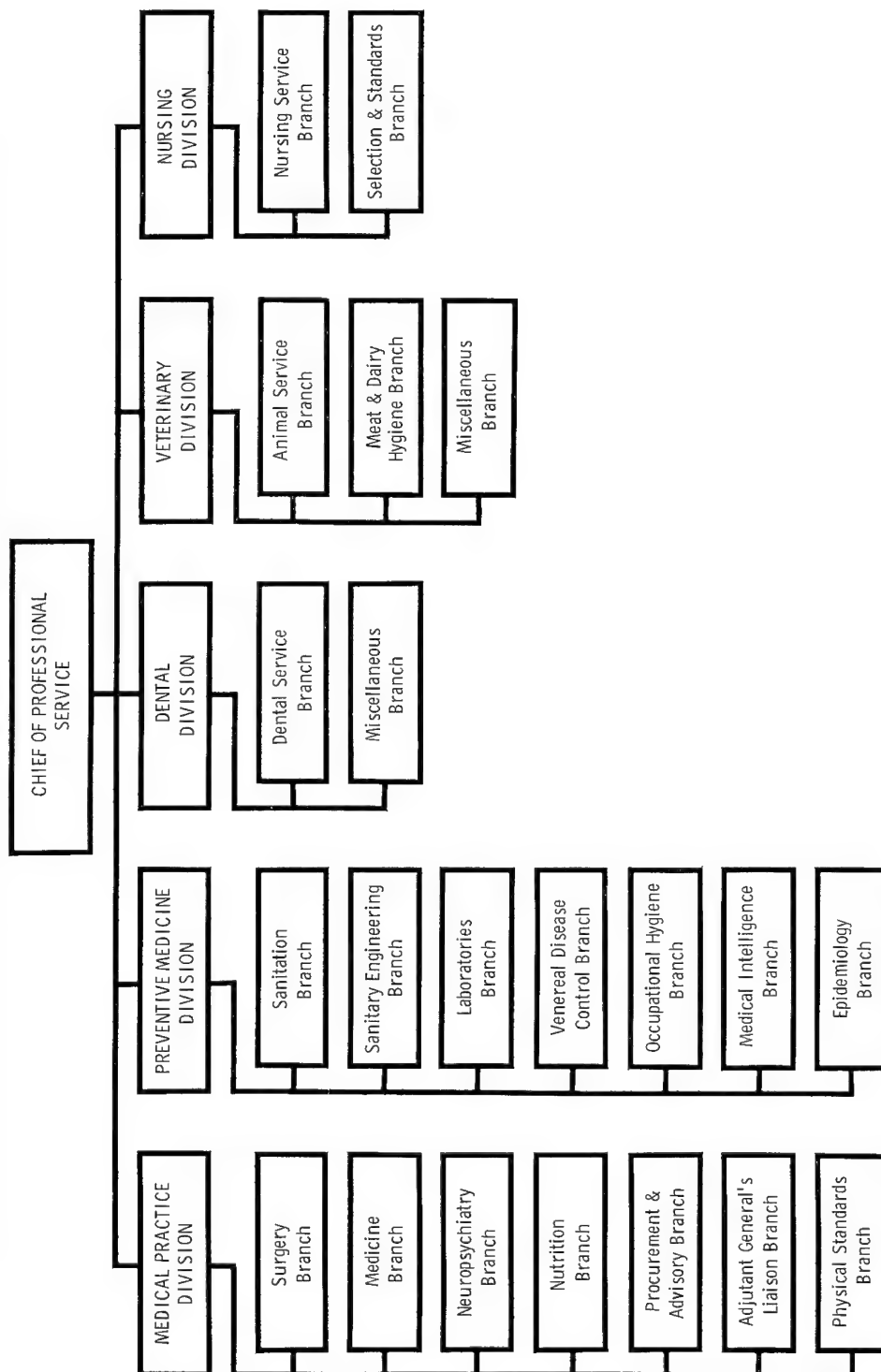




FIGURE 2.—Col. William B. Foster, MC.

tions and many numbered changes to these regulations, as well as numerous circulars, letters, and intermediate procedural directives were issued, which do not appear in this volume. Chapters II and III discuss the more important problems to which the changes responded. Some alterations resulted from understandable errors of estimation or changes in the requirements of the war. Other changes and reversals in policy were printed attempts to cope with and bring order to the chaotic situations which were bound to develop when millions of individualistic physical and personality types were categorized by thousands of other individuals who were unequally familiar with the intentions of the regulations or the requirements of the Army.

For purposes of background information, there follows a brief general discussion of the groups responsible for applying the regulations as well as a short description of the changing process whereby enlisted men were brought into the Army during World War II.

SELECTIVE SERVICE COORDINATION

Coordination between the Army and Selective Service was necessary not only in the creation and evolution of physical standards but also in the utiliza-

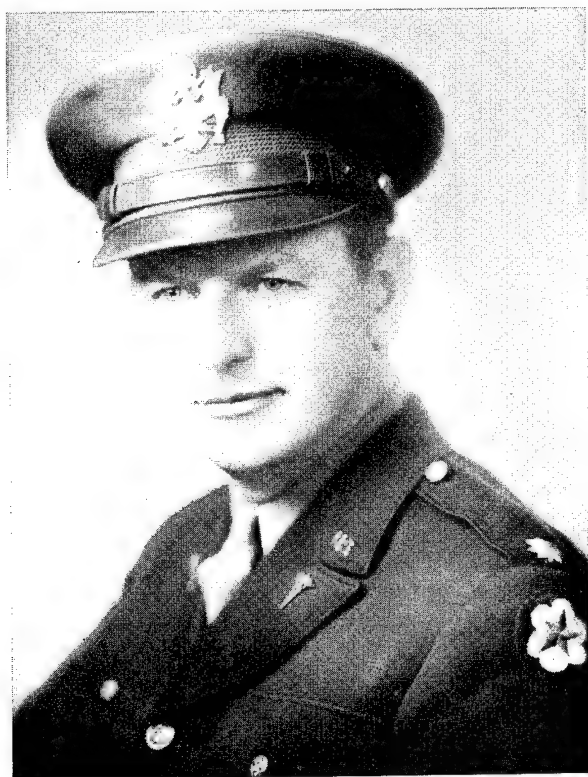


FIGURE 3.—Col. Cornelius E. Gorman, MC.

tion of the standards throughout the country during the induction process as well. Authorized by Congress on 16 September 1940, the Selective Service System began operation the following month. Col. Richard H. Eanes, MC (fig. 4), a Regular Army officer, became chief medical officer for the System. Selective Service had a year's experience of peacetime operation before it was called upon for the serious function of selecting young men for wartime service (fig. 5).

The selective service organization consisted of a national headquarters and 53 "State" headquarters. This number included, in addition to 1 for each of the 48 States, a headquarters for Hawaii, Alaska, and Puerto Rico, and 1 each for the city of New York and the District of Columbia. State headquarters supervised and conducted registrations. Beneath the level of State headquarters, examining physicians on 6,443 local boards made the first determination of a registrant's physical condition.⁵ The Selective Service System did not, in contrast to the operation for World War I, induct men into the service. Neither did it make the final decision, except for rejection in manifest cases, concerning the qualifications of a man for service. The selective service local board selected

⁵ See footnote 4, p. 4.



FIGURE 4.—Col. Richard H. Eanes, MC.

a man as available for service by considering all aspects of civilian manpower requirements. If the man was not considered essential to the civilian effort, a physician examined him for physical defects and then, if he was not indisputably disqualified under current procedures, he was sent to the Armed Forces for further examination and induction. At Army induction stations, medical examining boards made the final determination of a registrant's physical qualifications. Advisory boards and appeal boards were also set up to assist selective service and Army officials as well as registrants.

Following enactment of the Selective Training and Service Act of 1940, interest in induction and physical evaluation procedures of World War I was intensified and studies which had been going on throughout the intervening years were given priority. The Surgeon General sent a memorandum to the Assistant Chief of Staff, G-1,⁶ presenting a plan, subsequently put into use, for the organization and operation of Army medical examining boards at induction stations.

Examining boards were to be located in centers of population, preferably in or adjacent to a military post or station, while at the same time reducing

⁶Memorandum, Col. James E. Baylis, MC, Executive Officer, for The Surgeon General, to the Assistant Chief of Staff, G-1, subject: Physical Examination of Selectees Under the Provisions of the Selective Service Act, 25 July 1940.

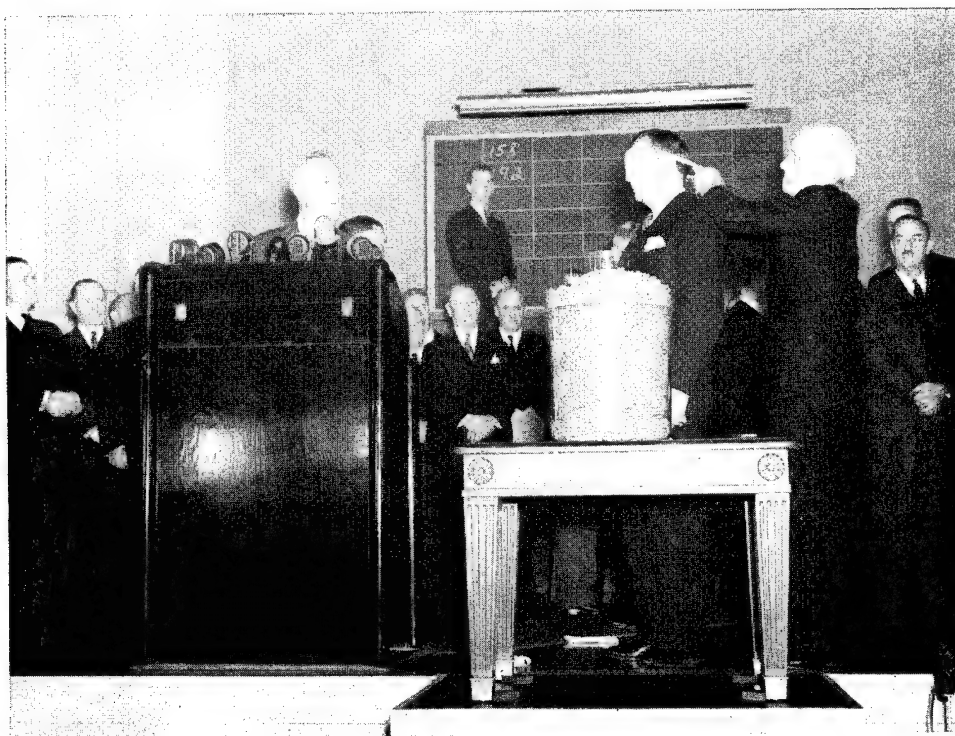


FIGURE 5.—President Franklin D. Roosevelt speaks at ceremony in Washington, D.C., when first inductees are determined by lottery, 29 October 1940. Attorney General Robert Jackson is being blindfolded by Col. C. R. Morris, USA (Ret.).

the distance traveled by registrants from their homes to the examining board. It was determined that about half of these boards could be established at military installations. Locations for boards were suggested by The Surgeon General, but actual placement was to be left as a matter for decision by corps area commanders concerned.

An Army medical examining board was to consist of 11 medical officers and 1 dental officer, preferably reserves. The officer in charge, however, was to have been on active duty for a period of time sufficient to supervise preparation of the examining room and to check supplies and equipment. All boards in a given military area were to be supervised by a Regular Army medical officer. However, the shortage of Regular Army medical officers made this impossible.

In addition to the officer in charge, the board was to consist of one general surgeon, three internists, one orthopedist, two ophthalmologists, one otorhinolaryngologist, one neuropsychiatrist, one clinical pathologist, and one dentist. To assist the board, it was considered necessary to have a total of 22 enlisted men or qualified civilians. This complement was to consist of two noncommissioned officers (preferably of the Medical Department), one stenographer, one

typist, two laboratory technicians, eight men to act as clerks, and eight men to act as messengers and to perform general duties.

The examining procedure was predicated on examining men at the rate of 25 per hour during each 8-hour day. It was anticipated that men would be introduced into the examining process at the rate of approximately one every 2 minutes. This schedule was established to provide a 10-minute period at the end of each hour to permit examining physicians to make further examinations and to confer on more difficult cases.

Changes in medical science and procedures since World War I allowed for some reductions in personnel and increased speed of processing. For example, questionable cases of tuberculosis were to be decided by X-ray examination rather than by reference to special tuberculosis examiners. As a result, it was believed that one examining board would be able to average 200 examinations per day. Thus, in a period of 25 days, one board could examine 5,000 men. On this basis, it was possible for 80 examining boards to examine 400,000 men in 25 days. Of this number, it was estimated that some 300,000 registrants would be found acceptable. The proposed plan, however, provided for 94 boards rather than for 80 to allow for any losses in effectiveness resulting from geographical dispersion. At the same time, it was noted that additional boards might be required, depending on local conditions.

Fundamental honesty and integrity were essential in all members of examining teams. Regulations for physical examination and physical standards served as guides to accurate processing. A careful system of check and double-check was necessary to prevent error, particularly with the speeds at which work had to be performed. Constant supervision was necessary even with well-trained personnel. All personnel had to be alert to changes in regulations which frequently called for a complete reversal of policy. Consequently, team members had to be flexible and capable of assimilating and digesting changes in standards and of applying them promptly and intelligently.

There were few diagnostic aids, except ophthalmoscopes, trial frames and lenses, stethoscopes, and chest X-rays. Time did not permit a detailed clinical history, a meticulous and prolonged physical examination, or many refinements of diagnosis considered essential in civilian practice. Decisions had to be made promptly and accurately, consultations reduced to a minimum, and dispositions made with fairness and justice to all concerned.⁷

Many problems arose in the early phases of induction station operation, but as personnel became more experienced, station operation became more efficient and administrative complaints lessened. Meanwhile, the War Department maintained careful check on rejection rates. Rejections exceeded expectations and changes were made in examining procedures as well as standards, but the basic Army examination plan remained in effect throughout the war.

⁷ Herpel, F. K.: Medical Examination at an Armed Forces Induction Station: Observations of a Medical Examining Physician. *MIL. Surgeon* 94: 345-350, June 1944.

INDUCTION PROCEDURE DEVELOPMENTS

One aspect of induction procedure after the start of the peacetime draft resulted in so much protest from private and public sources that it had to be changed. Some weeks or months after an initial examination at local selective service boards, depending on induction quotas, potential inductees were sent to Army examination stations for induction examinations. Those acceptable to the Army were inducted immediately, making it necessary that everyone called conclude his employment and personal affairs before reporting for the examination.⁸ Those failing to pass this second examination (from 5 to 30 percent depending on the relative experience of selective service versus Army examiners) faced the embarrassment and inconvenience of returning to their homes and jobs after having made their farewells. This situation was changed shortly before the United States actively entered the war by having all inductees returned to their homes as civilians at the expense of Selective Service. These persons remained at home, subject to orders for induction, without further examination if their order numbers were reached within 90 days. This procedure lasted only a short time after the United States entered the war. On 15 February 1942, the Army announced that it would again induct acceptable men immediately upon examination. There was a difference, however, from the original procedure which had caused so much public protest. Registrants found physically qualified after the induction examination were sworn in immediately as members of the Army, but instead of being sent at once to reception centers, they were transferred to the Enlisted Reserve and sent home. Travel was at Army expense, and men were under orders to report to a designated reception center 7 days later.

Within 7 days following entry of the United States into war, new regulations were issued to provide a uniform induction procedure to replace various State selective service plans previously authorized. Under the new regulations, the concept of two complete physical examinations (one by the Selective Service and one by the Armed Forces) was abandoned (fig. 6). Beginning on 1 January 1942, examining physicians at local boards were required to examine registrants only for the more easily detectable defects which were disqualifying for general service or for any military service. Physical standards established in MR 1-9 (appendix A, p. 129) were no longer used by Selective Service. Instead, the Director of Selective Service issued DSS Form 220, which was a "List of Defects" to be used by examining physicians as a guide. This form also identified the more easily detectable defects qualifying for limited service. Examining physicians were not to take blood for serological testing except on request of the Armed Forces. Moreover, medical advisory boards supported examining

⁸(1) Memorandum, Lt. Col. John E. Dahlquist, GSC, for General Haislip, 13 Mar. 1941, subject: Physical Examination of Selectees. (2) Letter, The Adjutant General, War Department, to Commanding General, Third Corps Area, Baltimore, 23 Apr. 1941, subject: Revision of Induction Procedure.



FIGURE 6.—Inductees waiting to be examined at Fort Douglas, Utah, 6 March 1942.

physicians when the latter called for special examinations or tests in cases of doubt.⁹

Joint Induction

On 5 December 1942, the President, by Executive Order 7279, directed that volunteer enlistments of persons between 18 and 38 years of age be terminated and that all male enlisted personnel needed by the Armed Forces be obtained through Selective Service and distributed to the services on a ratio quota basis. Before this time, the Navy had satisfied its manpower requirements by volunteer enlistments. Because they had no induction station setup and in order to avoid unnecessary duplication and expense, it was decided

⁹(1) For a more complete discussion of the induction process and the role Selective Service played in it, see the series of special historical monographs printed after World War II for the Selective Service System in the U.S. Government Printing Office, Washington, D.C. Titles include: "Backgrounds of Selective Service," "The Selective Service Act," "Registration and Selective Service," "The Classification Process," "Industrial Deferment," "Agricultural Deferment," "Dependency Deferment," "Age in the Selective Service Process," "Special Groups," "Conscientious Objection," "Quotas, Calls, and Inductions," "Reemployment and Selective Service," "Enforcement of the Selective Service Law," "Physical Examination of Selective Service Registrants," and "Problems of Selective Service and Evaluation of the Selective Service Program." (2) Other detailed information is available in wartime Selective Service regulations, changes, and miscellaneous publications.

that inductees for naval service would be handled through Army induction stations already in operation. This necessitated some planning for joint induction procedures, and coordination of physical standards of the two services, which differed in many respects. For instance, the Army had no restrictions for color blindness, but the Navy did. Army standards for minimum and maximum height were from 60 to 78 inches, respectively, while those of the Navy were 62 and 76 inches. Another difference occurred in the acceptability of those with venereal diseases. In February 1943, the Navy would not accept individuals with any venereal disease, while the Army would accept them to the extent of local capacity for treatment provided no disabling complications existed and the men were otherwise qualified. Some compromises were made, and as time went on the standards of the two services were brought somewhat closer together.¹⁰

Volunteers for induction were permitted under joint procedures. Within quotas, every effort was to be made to grant the requests of registrants for assignment to either ground or naval forces. Priority was to be given to those volunteering in advance of order number call, but no assurance of assignment to either ground or naval forces was to be given to anyone before induction. In January 1943, procedures permitted those inducted into the Army to elect to proceed directly to a reception center or to be transferred to the Enlisted Reserve Corps for a period of 7 days, as discussed earlier. Registrants rejected for military service were to be returned by Armed Forces recruiting and induction stations to the vicinity of the local board delivering them for induction processing. Reports of physical examination on all registrants rejected were to be sent to The Surgeon General of the Army.

Other Procedure Changes

Public Law 197 of December 1943 required that registrants expecting induction momentarily be given a preinduction physical examination on request. Beginning in January 1944, examinations were to be given at Armed Forces induction stations, and the results were to be accepted by selective service local boards. Actually, the law was intended to cover only certain individual cases. Selective Service, however, immediately began accepting preinduction examinations performed at Armed Forces recruiting and induction stations on a mass scale in lieu of the "physical inspection" they had been performing. Consequently, by the end of January 1944, examinations by local board physicians became very cursory in nature, except for special cases. Following thorough preinduction physical examinations at Army examination stations,

¹⁰(1) Letter, The Adjutant General, War Department, Services of Supply, to Commanding General, Each Service Command, 22 Jan. 1943, subject: Joint Induction Procedure of the Army, Navy, Marine Corps, and Coast Guard. (2) Letter, The Adjutant General, War Department, to Commanding General, Each Service Command, 27 May 1943, subject: Changes in Joint Induction Standards for the Army, Navy, Marine Corps, and Coast Guard. (3) Letter, The Adjutant General, War Department, to Commanding General, Each Service Command and USAFPOA, 25 July 1943, subject: Joint Induction Standards of the Army, Navy, Marine Corps, and Coast Guard.

those accepted were returned home to await call within 90 days. Then, they were delivered to induction stations by local boards for a less extensive physical inspection after which they were inducted. The procedure was thus almost a reversal of that previously in effect on this point.¹¹ The 1944 procedure did not change materially for the remainder of the war.

Registrants appearing at reception centers more than 90 days after their preinduction physicals were required to undergo a complete new physical examination.¹² Otherwise, they were given only a physical check for contagious disease, apparent defects, and for intercurrent illnesses or injuries. It was only under exceptional circumstances that registrants were rejected at this point.¹³

From a medical point of view, reception center responsibilities in 1944 involved physical profiling (ch. IV), blood typing, and immunizations. Apart from the required physical inspections, these remained the principal medical function at this stage of the process of bringing a man from civilian life to active service. The general physical examination was usually accomplished on the first day of processing, while blood typing and immunizations were accomplished on the second. Otherwise, determination of a man's capability to serve, based on physical grounds, was normally an accomplished fact before his arrival at reception centers. However, physical rehabilitation functions such as treatment of venereal disease and dental defects, together with furnishing spectacles, all after induction, normally began at reception centers.

CONCLUSIONS

The Medical Department had its World War I experience and its between wars planning on which to base induction activities during World War II, but only the press of mass mobilization could uncover most of the difficulties which then arose. Procedures were amended as circumstances required, and solutions were improvised when problems appeared. At the same time, every effort was made to maintain the required steady flow of men into the Armed Forces. Not all problems could be resolved by procedural changes, however, and when it became obvious that certain physical standards would not permit manpower requirements to be met, some of the basic standards had to be re-evaluated and changed.

¹¹ Selective Service as the Tide of War Turns. Third Report of the Director of Selective Service, 1943-1944. Washington: U.S. Government Printing Office, 1945, pp. 56-57.

¹² Memorandum, Brig. Gen. Russel B. Reynolds, GSC, Director, Military Personnel Division, Headquarters, Army Service Forces, for The Adjutant General, 19 May 1944, subject: Status of Registrants Whose Pre-Induction Physical Examination Has Exceeded 90 Days.

¹³ (1) Letter, The Adjutant General, War Department, to Commanding General, Each Service Command, Alaskan Department, USAF in Central Pacific Area, Antilles Department, and Military District of Washington, 19 June 1944, subject: Pre-Induction of Registrants. (2) Letter, The Adjutant General, War Department, to Commanding General, Each Service Command, Alaskan Department, USAF in the Pacific Ocean Areas, Antilles Department, and Military District of Washington, 27 Nov. 1944, subject: Pre-Induction Physical Examination and Induction of Registrants.

CHAPTER II

Fluctuation of Physical Standards According to Manpower Needs: Higher Manpower Re- quirements—Lower Entrance Standards

INTRODUCTION

When the United States moved toward war and an army of millions rather than thousands was suddenly required, the struggle to supply the basic element necessary to win the war—manpower—was on. In September 1940, there were an estimated 1,024,789 men in the Armed Forces, 519,805 of whom were in the Army. By December 1941, there were 2,296,086 in the Armed Forces, and in November 1942, the strength had risen to 6,773,809. At this time, the size of the Army had reached 4,932,469 men.¹ Less than 1 year later, the total strength of the Armed Forces had risen to 10,425,916 and by October 1943, Army strength had reached 7,333,474 men.² Before the end of the war, more than 10 million men in all served in the Army, the largest number at one time being 8,291,336 in May 1945 (fig. 7).

Although the Army made changes in its physical and mental requirements throughout the war, it was during the first 2 years that the most telling changes had to be made to permit the induction of millions of men. After that period a steady increase in personnel continued, but the problem of keeping individuals in the Army after they were inducted assumed new importance (ch. IV).

Before changing standards and procedures, the responsible personnel of the Surgeon General's Office had to consider such factors as (1) the contributions that could be made by persons with certain defects, (2) what the policy should be on the physical rehabilitation of men to make them capable of service, and (3) the merit or legal implications or both of calling in men with physical defects, thereby inviting future claims against the Government.

In addition to finding and resolving procedural problems and helping to make decisions about much publicized areas of complaint, such as the policies on venereal diseases, the Surgeon General's Office kept a constant check on trends in rejection rates as a basis for manipulating standards, authorizing

¹(1) Selective Service in Wartime. Second Report of the Director of Selective Service, 1941-42. Washington: U.S. Government Printing Office, 1943, pp. 64-65. (2) The Army Almanac. Washington: U.S. Government Printing Office, 1950.

²(1) Selective Service as the Tide of War Turns. Third Report of the Director of Selective Service, 1943-44. Washington: U.S. Government Printing Office, 1945, p. 551. (2) See footnote 1 (2).

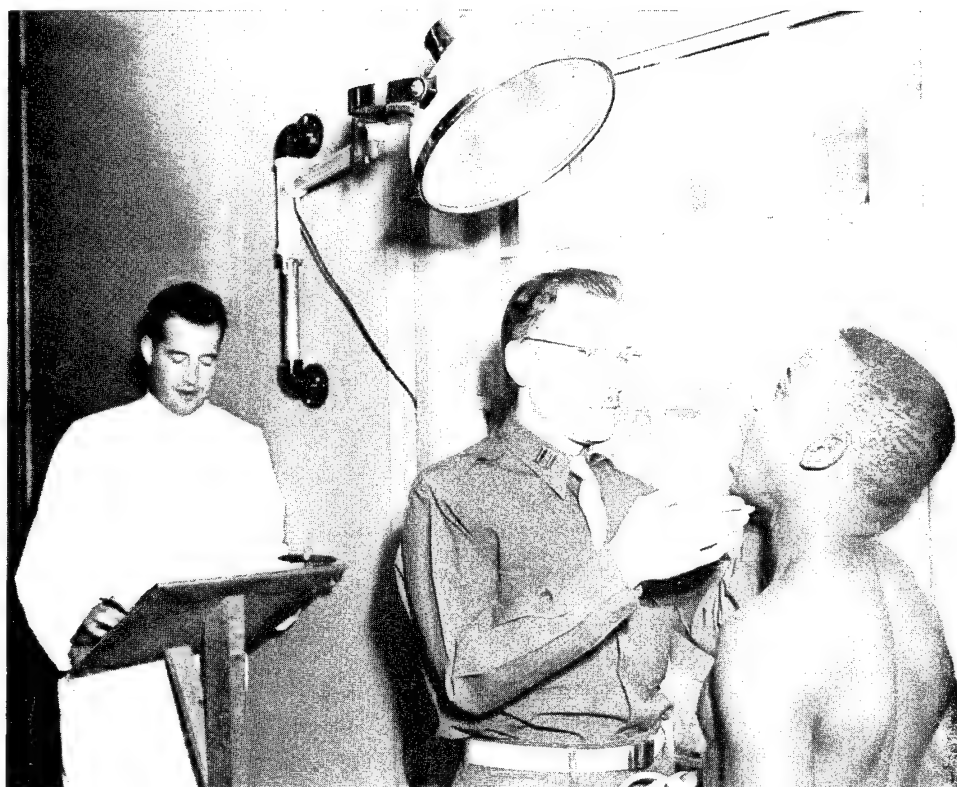


FIGURE 7.—A young inductee is examined at Camp Beale, Calif., November 1944.

waivers, and offering guidance on the interpretation of regulations. These rates were gathered by selective service local boards and Armed Forces examination stations; they were compiled by the National Headquarters, Selective Service System, and by the Medical Statistics Division, Surgeon General's Office.

For the period of November 1940 to August 1945, an estimated 17,954,500 men were examined for induction into military service, and 6,419,700, or 35.8 percent, were rejected.³ During the mobilization period before the United States entered the war, total rejections for induction ran as high as 52.8 percent.⁴ It should be noted, however, that this percentage included persons with physical defects who were classified as acceptable for limited service. These men were not drafted then because the Army at that time still demanded only individuals qualified for general service who could undergo and complete training without delay and then go into the Reserves. During the war, when limited service personnel were drafted, overall rejection rates fluctuated from about 30 to

³ Egan, J. R., Jackson, L., and Eanes, R. H.: Study of Neuropsychiatric Rejectees. *J.A.M.A.* 145: 466-469, 17 Feb. 1951.

⁴ Medical Statistics Bulletin No. 2, National Headquarters, Selective Service System, 1 Aug. 1943.

50 percent. These rates were influenced by many factors—changes in standards and induction procedures, reexaminations of previously rejected men, variation in age groups being called, efficiency of examinations, manner of reporting rates, and regional policies. Although these high overall rejection rates were of grave concern to the Surgeon General's Office, it was necessary to study rejection rates for specific defects to determine the areas in which changes in standards would bring the requisite number of new men into the Armed Forces.

The changes in physical standards which permitted the greatest introduction of new men into the Army were those made for vision, teeth, and venereal diseases. The establishment of a rehabilitation program and the induction of limited service men helped make these changes possible. Advances in medical technology reduced the possibility of inducting tuberculars, but the problems in the area of mental disorders and deficiencies remained serious throughout the war.

POLICY ON REHABILITATION FOR INDUCTION

The treatment of remediable defects found in inductees and the induction of defectives with the deliberate intention of later rehabilitation were serious problems during mobilization. In 1940 and 1941, these problems were given considerable study, but they remained major issues at the outbreak of war,⁵ only to be pushed into the background by the rush of events. The problems were not dormant for very long, however, because the number of men disqualified for service exceeded all expectations while the need for manpower mushroomed.

The idea of rehabilitating men found physically disqualified for service at the time of induction was not a new one. For example, registrants with correctable defects were classified in World War I as "remediables."⁶ Because the regulations were not always correctly interpreted by local boards or even by medical advisory boards, many registrants with remediable and other defects were inducted into the service only to burden existing Army hospital facilities. This was especially true with respect to feet and hernias. At one time, about 10,000 men with hernia were in Army hospitals awaiting definitive treatment. The problem was brought to a head in 1918 when there was a large and taxing influx of respiratory and other communicable disease cases into Army hospitals. Consequently, the correction of remediable defects was brought to a halt as a matter of expediency due to a lack of hospital and other medical facilities as well as personnel.

As a result of World War I experience, it was apparent that any attempts at rehabilitation should be executed on the basis of sound and complete informa-

⁵ Memorandum, Lt. Col. John A. Rogers, MC, Executive Officer, Office of The Surgeon General, for the Secretary of War, 4 Oct. 1941, subject: I. Selectees With Remediable Defects. II. Induction of Individuals With Venereal Disease. [Both Colonel Foster and Mrs. Hellman used this document in their work on earlier drafts of this volume, but the document has since become unavailable.—C. M. W.]

⁶ The Medical Department of the United States Army in the World War. Volume VI. Sanitation. Washington: U.S. Government Printing Office, 1926, pp. 463-470.

tion. It was equally apparent that a program of this type should be under close administrative supervision at all times. Therefore, when the question of correcting physical defects arose in World War II, a commission on physical rehabilitation was created. Its membership consisted of six physicians and one dentist who were charged with studying the most suitable methods and procedures for developing such a program. In July 1941, the commission recommended that a voluntary physical rehabilitation program be initiated and that the costs be defrayed by the Federal Government. An alternative recommendation called for a lowering of physical standards, with the understanding that men subsequently inducted with remediable defects were to be subjected to a compulsory program of correction conducted by the Army. As long as the country was not actually at war, the Army was unwilling to modify its policy of high physical standards. Neither did the Army wish to reverse its position on the matter of not undertaking a rehabilitation program within the service. In these circumstances, voluntary rehabilitation appeared to be a necessity.

On 9 October 1941, the President called a conference to discuss this problem. The next day, it was announced that the Selective Service System had been charged with the responsibility of administering a program for the rehabilitation of men between 21 and 28 years of age who had been found at induction stations to have remediable defects. It was estimated that approximately 20 percent of the 1 million men rejected up to that time, or some 200,000 registrants, possessed remediable defects. The President's plan called for the rehabilitation of this number under a program to be carried out through existing selective service boards and with existing personnel. Corrective treatment was to be given by the family doctor or dentist in a registrant's hometown, under the supervision of Selective Service, and in conjunction with county medical and dental societies. Professional work was to be accomplished at reasonable costs, defrayed by Federal funds.

Part 661 of Selective Service Regulations, entitled "Physical Rehabilitation," was developed and approved. Before it was made effective on a nationwide basis, however, pilot tests were conducted in the States of Maryland and Virginia. Results of the pilot tests were not wholly satisfactory, although cooperation given by physicians, dentists, and registrants alike, was considered excellent. The success of the tests was viewed as something less than complete for the following reasons: (1) The number of cases which were remediable without surgical treatment was found to be small in comparison to those which could be so corrected, and (2) the many registrants previously classified as nonacceptable, but with remediable defects, were inducted immediately after the outbreak of war. This was because their original classification was made on the basis of the high prewar physical standards which were lowered rapidly after December 1941. Thus, many registrants scheduled for rehabilitation were already serving in the Army.

There was, moreover, a critical shortage of civilian physicians developing during the early months of 1942, which led to some doubt as to whether a

rehabilitation program on a nationwide basis could be properly staffed. These and other factors led the Director of Selective Service to be relieved at his own request of responsibility for the program. By August 1942, men were being inducted into the Army for general and limited service on a much broader scale, even though they possessed remediable defects which previously had been considered unacceptable. With this turn of events, the approach was to accept men in these categories with certain defects which could be corrected by the Army after induction. This applied particularly to those with defects involving venereal disease (p. 27), teeth (p. 21), vision (p. 24), or hernia (p. 27).

LIMITED SERVICE FOR INDUCTEES

Before the United States entered World War II, enlisted men were not inducted when physically evaluated as suited only for limited service. The pressure for increasing the size of the Army and the need for replacements as the war progressed, however, brought about an early change of policy. On 26 June 1942, the War Department announced that effective on 1 August 1942, selective service registrants not physically qualified for general military service, but who had specified defects qualifying them for limited service could be inducted.⁷ These individuals included—

1. Those who on examination had been found to present conditions not within the accepted measurements for weight and chest circumference, as shown in mobilization physical standards (MR (Mobilization Regulations) 1-9, "Standards of Physical Examination During Mobilization") but who were otherwise mentally and physically fit, and who did not fall within class IV (unfit for military service).

2. Those with a minimum vision of 20/400 in one or both eyes without glasses, if correctable with glasses to 20/40 in either eye.

3. Those with the loss of one eye, or blindness in one eye not due to progressive organic change, with vision in the other eye of not less than 20/200 correctable to not less than 20/40.

4. Those with hearing in one or both ears less than 10/20 but not less than 5/20. Complete deafness in one ear provided hearing was not less than 10/20 in the other ear.

5. Those with loss of one or both external ears, if the individual had followed a useful vocation in civil life.

6. Those with unilateral atresia of the external auditory canal.

7. Those with insufficient teeth to qualify for class I-A under mobilization standards, but whose dental defect was correctable by artificial dentures, provided there was no evidence of extensive areas of infection with multiple abscesses, large cysts, or any other disease of the jaws and oral tissues, the correction of which would require protracted treatment.

⁷Letter, The Adjutant General, War Department, to Commanding General: Western Defense Command, Caribbean Defense Command, All Corps Areas, and Hawaiian Department, 26 June 1942. subject: Selective Service Registrants Acceptable for Limited Service.

8. Those with deviation of the spine from the normal midline of more than 2 inches but less than 3 inches.

9. Those with entire loss of thumb of either hand.

10. Those with entire loss of three fingers of either hand, including the right index finger, provided the thumb remained.

11. Those with webbed fingers or toes, notwithstanding severity.

12. Those with moderate deformities of one or both upper extremities, which did not or had not interfered with function to a degree to prevent the individual from following a useful vocation in civil life.

13. Those with abduction and pronation of foot (knock-ankle), when the condition was not associated with rigidity of the tarsal joints, deformity of the foot, or excessive callosities.

14. Those with loss of a great toe.

15. Those with loss of dorsal flexion of a great toe.

16. Those with hammer toe with rigidity.

17. Those with other defects of the feet which would disqualify for general military service, but which would not prevent the individual from wearing a military shoe, and which had not prevented him from following a useful vocation in civil life.

18. Those with moderate deformities of one or both lower extremities, but which did not and had not interfered with function to a degree as to prevent the individual from following a useful vocation in civil life.

19. Those with deformities of clavicle, ribs, or scapula, of a degree disqualifying for general military service, but had not prevented the individual from successfully following a useful vocation in civil life.

20. Those with Fröhlich's syndrome, if only moderate in degree.

Registrants with defects other than those just cited and who had previously been classified under "limited service" were not to be accepted. Those who had previously been classified for limited service and who upon reexamination had been qualified for general military service were to be inducted.

When the need for manpower was greatest, the possibility of drafting all men who were physically and mentally capable of making an effective contribution was seriously considered but the risk of future claims against the Government and of other more immediate losses was felt to outweigh the benefits. The proportion of limited service men who could serve in the Army had meanwhile been set at 10 percent of the total on active duty. When training units were converted into combat outfits early in the war, it was found that many men serving in training units did not qualify for combat duty and that an excess of 10 percent was already in the Army. Limited service men for whom suitable assignments could not be found could be discharged. The induction quota for limited service men was dropped to 5 percent in February 1943. In April 1943, induction of limited service men was suspended completely for a period of 2 weeks, then resumed again at a 5 percent quota. During July 1943, the War Department ordered the mandatory discharge of limited service men

for whom suitable jobs could not be found. During this period, the War Department ordered that the classification, "limited service," be discontinued.⁸ The Army was to continue to accept, in controlled numbers, men who were not physically qualified for general service, depending on their skills, ability, intelligence, and aptitude, but the term, "limited service," was not to be permanently noted on service or allied records of men so accepted. Of course, physical defects were still described in examination records, which could be temporarily tagged, and defects were taken into consideration when assignments were made.

As physical standards were lowered to meet rising manpower needs, many former limited service men qualified for general duty. This led to a strange situation in which some limited service men without appropriate jobs were being discharged from the Army, while at the same time, others, sometimes less physically qualified, were being drafted for general or limited service. But by one method or other, the number of limited service men was reduced to the prescribed 10 percent by November 1943, and discharge of such personnel was prohibited. In September 1944, their discharge was again permissible. Between the acceptable quota of 10 percent for limited service men and those individuals inducted with defects under lowered standards, the overall total of such men who served at some time in the Army was considerable. Some 183,000 limited service personnel were separated as not adaptable during the war and others were separated with certificates of disability for discharge when they acquired new disabilities or when their existing defects were seriously aggravated by military service.⁹ Still others were separated "for convenience of the Government" when appropriate assignments were not available.

DENTAL STANDARDS

Dental standards during the mobilization period before World War II were high and were administered rigidly (appendix A, p. 129). For example, to qualify for general service, a registrant was required to have six serviceable natural masticating teeth and six serviceable natural incisor teeth, all so opposed as to serve the purpose of good incision and mastication. Persons with fewer natural teeth, but who had suitable dentures, were classified as acceptable for limited service, but were not to be inducted. Dental defects were the leading cause for rejection at local boards and accounted for 17.7 percent of all rejections during the prewar training and service period.¹⁰ About 8.8 percent of

⁸(1) War Department Circular No. 161, 14 July 1943. (2) War Department Circular No. 176, 31 July 1943. (3) Letter, The Adjutant General, War Department, to Commanding General, Each Numbered Service Command, Alaska Defense Command, Hawaiian Department, Puerto Rican Department, 14 July 1943, subject: "Elimination of the Term 'Limited Service' With Reference to Enlisted Men." (4) War Department Circular No. 293, 11 Nov. 1943. (5) War Department Circular No. 370, 12 Sept. 1944.

⁹(1) Monthly Progress Report, Army Service Forces, War Department, 31 Aug. 1946, Section 7: Health. [This report, used by Mrs. Hellman in the preparation of an earlier draft of this volume, is now unavailable.—C. M. W.] (2) For a discussion of procedures affecting limited service personnel while in the Army, see ch. IV, p. 65.

¹⁰ See footnote 4, p. 16.

all persons examined were rejected for dental reasons, although two-thirds of these were qualified for limited service. Most frequently recorded disqualifying defects were missing teeth, dental caries, malocclusion, and allied conditions (fig. 8).

Mobilization Regulations 1-9, dated 31 August 1940, did not indicate whether teeth replaced on removable bridges could be counted as serviceable natural teeth or not. In March 1941, Selective Service Medical Circular No. 2 was issued, which explained that either fixed or removable bridges were acceptable if supported at least in part by the remaining teeth. The details of this information were ultimately incorporated into MR 1-9 when it was revised and reissued in March 1942.

Selective Service Medical Circular No. 2 also clarified other sources of confusion in the regulation. For example, an error in the description of tooth defects acceptable for limited service in MR 1-9 of 1940, resulted in disqualifying large numbers of registrants. The standards provided that registrants be placed in a limited service category when found with "insufficient teeth to qualify for class I-A, if corrected by suitable dentures." Selective Service Medical Circular No. 2 explained that the word "corrected" was intended to



FIGURE 8.—A selective service enrollee gets his teeth examined at South Armory, Boston, January 1941.

mean *correctable*, since it was not intended that individuals have corrective dentures in their possession in order to qualify for limited service.

Standards Lowered

It was recognized in the Dental Division of the Surgeon General's Office, at an early date, that standards utilized in the prewar draft would not be useful in the event of war and full mobilization. In May 1941, Brig. Gen. Leigh C. Fairbank, Director of the Dental Division, estimated that a large percentage of men inducted into the Army would require extensive dental replacements as the result of the effects of lack of dental care during the depression years, but that this should not constitute a disqualifying factor.¹¹ He warned that the safety of the Nation should not be sacrificed just to maintain high dental standards. Consequently, action was to be taken to provide means for adequate corrective dentistry to care for those brought into the service in low states of dental health. "The entire plan for dental service in time of mobilization has been revised to meet the conditions which we are certain will exist in every Army camp."

At the outbreak of war and the start of full mobilization, dental standards were drastically reduced. Under an interim circular, February 1942, registrants were declared dentally acceptable for general service if they had no serious infection and had "sufficient teeth (natural or artificial) to subsist on the Army ration." A revision of MR 1-9 followed in March, spelling out the minimum complement of natural or artificial teeth or both. At this time, malocclusion was to be a cause for rejection only when it interfered with the individual's health or resulted in damage to the soft tissue.

When MR 1-9 was again revised and reissued in October 1942, dental requirements for induction were virtually eliminated. From that point on, registrants need have no teeth at all to qualify for general service provided they had or could be fitted for the necessary dentures. Criteria for limited service had been dropped, while only the most serious defects were to be disqualifying. Rejections for dental reasons went from 2.9 percent in April 1942 to about 0.1 percent in December 1942, and remained substantially unchanged for the remainder of the war.

Rehabilitation

In the selective service pilot tests conducted in Maryland and Virginia, the dental program operated along the lines previously discussed. It did so satisfactorily, but on a small scale, during the short period of time that the experiment was conducted. The rehabilitations accomplished were largely those of extracting infected teeth and replacing them with prosthetic dentures. The average cost of dental rehabilitation was estimated at somewhere between \$54.19 and

¹¹ Medical Department, United States Army. *Dental Service in World War II*. Washington: U.S. Government Printing Office, 1955, p. 200.

\$78.00 per registrant. The average elapsed time, from certifying the individual case as remediable to cured, was 38.5 days.

When the pilot tests ceased, the Armed Forces undertook the remedial work within each service. This resulted in the operation of a tremendous dental program. Approximately one-third of the practicing civilian dentists were taken into the Army and the Navy. In the Army, most dental rehabilitation was done during the basic training period at replacement training centers. The latter were recognized as the most favorable place in which to concentrate dental facilities, because it was the first location at which an inductee spent sufficient time to permit extensive dental treatment. Here, dental service was organized for maximum efficiency with the most critical positions staffed by the best qualified dental officers. Because many men went from replacement training centers to units on duty overseas, it was absolutely essential that men leaving the centers meet dental standards for foreign service.

The size of the dental rehabilitation program conducted by the Army between January 1942 and 31 August 1945 is reflected in the following tabulation of dental corrections:¹²

<i>Type of corrections</i>	<i>Number</i>
Permanent fillings.....	68, 092, 479
Extractions	15, 189, 936
Full dentures constructed.....	568, 669
Partial dentures constructed.....	1, 997, 162
Dentures repaired.....	743, 261
Fixed bridges constructed.....	206, 484
Teeth replaced.....	18, 306, 800
Dental prophylaxes performed.....	8, 187, 932

The dental defects handled under the program, if left uncorrected, would have been detrimental at least to the extent of interfering with mastication of the Army ration. Without the program, it would have meant either the induction of untreated dental cripples, bringing with them into active service the adverse effects of a large number of physically incapacitated men, or their rejection for any military service. Either way, it would have resulted, substantially, in the loss of the effectiveness of nearly 1 million men, or the equivalent in numbers of approximately 65 divisions.

VISION

Between 1940 and 1944, standards for vision were quite clear cut, even though they underwent considerable revision. Diseases and conditions which did or did not disqualify a registrant for service were specific. Specifications for the test to be given to assist the examining physician in arriving at a decision, however, were not so precise. Mobilization Regulations 1-9 prescribed an examining routine which included only a test for visual acuity and an

¹² Medical Department, United States Army. Dental Service in World War II. Washington: U.S. Government Printing Office, 1955, pp. 247-254.

inspection of the eyes, with the lids inverted, for evidence of disease, as well as muscular and other defects. Examinations more extensive than this, including refractions, were to be made only when defects were revealed during the routine examination.¹³

The Army-Navy Vision Committee of the Office of Scientific Research and Development established a Subcommittee on Procedures and Standards for Visual Examinations. Serving as its chairman was the Chief of the Ophthalmology Branch of the Surgeon General's Office. The subcommittee developed a manual of instructions for testing visual acuity aimed at establishing uniformity of equipment, lighting, and other conditions for conducting the tests. Items such as the occluder used to shield the eye not being tested were described in complete detail.

On 10 July 1945, the subcommittee recommended that the manual be used by all the Armed Forces, and a copy was submitted to the Physical Standards Division of the Surgeon General's Office. Members of the subcommittee were of the opinion that both the Army and the Navy could employ comparable visual-acuity tests. Moreover, for the first time, examinations given in all parts of the country would be the same. The procedure contained in the manual was not incorporated into the standards until August 1946, however.

Effects of Standards Changes

During 1940-41, eye defects were the cause of 12.2 percent of all rejections and were the second leading cause for disqualification.¹⁴ After standards were lowered at the outset of the war, however, rejections for eye defects were exceeded consistently by mental disease, by mental and educational deficiency, and by musculoskeletal and cardiovascular defects.

After they were lowered, physical standards for the eyes even permitted the induction of registrants with handicaps which would have prohibited their engaging in certain civilian employment. Registrants with unilateral blindness, for example, were acceptable for limited service. With the possible exception of those men with dental defects and venereal disease, more men were made available for service by lowering standards for the eyes than was the case involving any other part of the body.

Rehabilitation

The rehabilitation of men with eye defects principally involved the correction of vision by furnishing spectacles to those who could not meet the standards without them and who did not already have them. This practice did not originate with World War II. As early as the latter part of 1917, action

¹³ Medical Department, United States Army. *Surgery in World War II. Ophthalmology and Otolaryngology*. Washington: U.S. Government Printing Office, 1957, pp. 10, 27, 28, 29, and 453-455.

¹⁴ See footnote 4, p. 16.

to standardize on a lens to be used in military service had begun, and by June 1918, spectacles were being furnished by the Army without cost to the individual. At the beginning of World War I, registrants requiring spectacles were inducted, but no special provisions were made for supplying the spectacles. When the need was established by refraction, the individual was permitted to purchase spectacles through camp exchanges at a reduced price. The Army began furnishing spectacles without cost to the wearer as a result of public criticism of a system which required an inductee to suffer the expense of a piece of equipment essential to the performance of his military duties.

Similarly, in 1940, the only provision for purchasing spectacles for military men at Government expense was in connection with correcting visual defects suffered as a result of violence in line of duty. Men inducted during this premobilization period were responsible for the purchase, repair, and replacement of their own spectacles. In June 1941, on the recommendation of The Surgeon General, The Adjutant General directed that necessary arrangements be made to supply spectacles to all Army personnel requiring them. With this, the Army embarked on an enormous optical program.¹⁵

When the World War II optical program was initiated, the basis of issue of spectacles was one pair to each individual requiring spectacles, with another pair provided upon embarkation for overseas. This was done so that the individual's efficiency would be maintained even in isolated areas overseas while a broken pair was being repaired or replaced. This plan, however, was found to impose an impossible burden upon staging areas and ports of embarkation, as well as upon optical supply houses. Often, by the time the spectacles had been fabricated and delivered to the overseas staging area, the individual had already moved on. True destinations were often obscure. Delivery overseas presented insuperable obstacles, and glasses which had to be discarded represented a financial loss of at least two-thirds of their value, since the lenses, which represented this proportion of the cost, were not salvageable. To overcome this obstacle, each man requiring spectacles was issued two pairs as early in the training process as possible, whether he was destined for overseas duty or not. At the end of hostilities, the basis of issue was again made one pair of spectacles to each person.

Arranging for contracts and the supply of spectacles presented some severe administrative problems. The total problem was further complicated by the necessity for furnishing spectacles which could be fitted into gas masks. In addition, arrangements had to be made so that repair and replacement of spectacles could be accomplished overseas. This problem was solved by the design and construction of mobile optical repair units, which consisted of a specially designed van, complete with an initial load of supplies and the necessary tools, machinery, and technical personnel.

¹⁵(1) Medical Department, United States Army. *Surgery in World War II. Ophthalmology and Otolaryngology*. Washington: U.S. Government Printing Office, 1957, pp. 28-31. (2) Medical Department, United States Army. *Medical Supply in World War II*. [In preparation.]

By the end of the war, some 18 to 20 percent of all military personnel were furnished with spectacles. An estimate of 10 percent was made at the outset of the program. During the entire war, a total of 2,250,000 pairs of spectacles had been fabricated by civilian and military facilities and issued, with nearly 1,500,000 of these being distributed in 1942 and 1943. These were issued at a rate of 522,000 pairs per annum, which included a 30-percent per annum replacement factor for personnel stationed in the Zone of Interior. In addition, some 7 percent of all military personnel wearing glasses were furnished gas mask inserts. These totals, of course, do not represent the number of men who actually needed and wore glasses in the service, because some possessed and maintained their own, while a substantial portion of the total represented replacements.

HERNIA

During the mobilization and early war period, only the simplest forms of hernia were acceptable either for general service or for limited service, even though hernia accounted for almost 6 percent of all rejections within the 1940-41 period.¹⁶ Military authorities were generally opposed to the induction of men with hernia, except the small symptomless variety at the umbilicus. This was based on the fact that part of the difficulty of the repair of hernia under compulsion is the physical trauma resulting in painful scars and functional disability. Early in the war, however, the Navy accepted men with hernia to be repaired in Navy treatment facilities after induction.

It was only after 200,000 registrants with the more complicated hernias had been rejected that certain of these hernias were made acceptable to the Army. In November 1943, the Army began to accept for limited service men with inguinal hernia which had not descended into the scrotum. After induction, registrants with hernia either underwent surgery or were classified for limited service and performed the appropriate limited duties. The overall contribution to the buildup of the Army was not great, however, and was restricted mainly to limited service personnel.

VENEREAL DISEASES

Tests

The initial Selective Service Regulations of 1940 required that each registrant be given a serological test for syphilis. Local draft boards were to make a thorough investigation whenever a registrant's history or physical examination indicated the possibility of venereal disease. Additional examination and laboratory tests were to be employed, as deemed necessary, to determine the presence of disqualifying sequelae or of contagion. A second test was to be given in all cases where the first test was positive.

¹⁶ Sec footnote 4, p. 16.

By June 1941, the U.S. Public Health Service had completed analysis of over a million serological tests of men examined for military service.¹⁷ The results showed that serological tests were positive on 1.8 percent of the whites and on 24 percent of the Negroes examined. A study based on the second million reports of physical examinations received for the period from 16 April to 31 August 1941 showed that of 1,041,155 registrants tested for syphilis, positive results were reported in 4.9 percent or 50,929 cases. Of this number, 756 had shown suspicious early primary lesions. Test results of these were reported as 555 negative, 180 positive, and 18 doubtful. There were 41 cases whose report of examination showed a finding of primary and secondary lesions, but there were no blood test data available.

In November 1944, the Selective Service System, in its Medical Statistics Bulletin No. 3, reported the incidence of syphilis occurring during the period from April 1942 to December 1943 to be 50.2 registrants per 1,000 examined, the rate being 20.8 for white registrants and 214.7 for Negroes. The diagnosis in both races was predominantly on the basis of positive serology with no specified classification made as to the stage of the disease. As a result of this study, it was found that all forms of syphilis except neurosyphilis occurred approximately 10 times as frequently among Negroes as among white registrants. The ratio of incidence of neurosyphilis between white and Negro was 1 to 4. Complications of syphilis, such as neurosyphilis and cardiovascular syphilis, were recorded infrequently among registrants examined. Neurosyphilis occurred in 1.8 registrants and cardiovascular syphilis in 0.2 registrants per 1,000 examined.

The Army Policy

Under the pre-July 1942 concept that persons classified for limited service would not be inducted, men with venereal disease were bypassed by the draft (appendix A, p. 129).¹⁸ This policy was questioned by the Director of Selective Service in July 1941. In a letter to the War Department, he expressed the belief that acceptance of venereals would be necessary if an adequate supply of inductees for the Armed Forces was to be maintained. At the same time, public opinion was beginning to manifest an objection to a system which permitted individuals with venereal disease to avoid service, while those without it were compelled to serve. In reply, The Surgeon General agreed that it should be possible to induct individuals with certain venereal infections. These were defined as (1) individuals with uncomplicated cases of gonorrhea, and (2) persons

¹⁷ Syphilis Among Selectees and Volunteers. Medical Preparedness. J.A.M.A. 116(26): 2859, 28 June 1941.

¹⁸ (1) Mobilization Regulations No. 1-9, 31 Aug. 1940, as amended by War Department Circular Nos. 110, and 117, dated 4 Oct. 1940, and 18 Oct. 1940, respectively. (2) Mobilization Regulations No. 1-9, 15 Mar. 1942. (3) For a discussion of the overall venereal disease problem, see Sternberg, Thomas H., Howard, Ernest B., Dewey, Leonard A., and Padget, Paul: Venereal Diseases. In Medical Department, United States Army. Preventive Medicine in World War II. Volume V. Communicable Diseases Transmitted Through Contact or By Unknown Means. Washington: U.S. Government Printing Office, 1960, pp. 139-331.

who had had syphilis, but who, following adequate treatment, had shown no objective evidence of the disease for a minimum period of 1 year.¹⁹

By March 1942, those with adequately treated syphilis were to be classified as acceptable for general service, but the change resulted in the induction of very few registrants so afflicted. The criteria of what constituted "adequate treatment" was so rigid that few registrants with syphilis could meet it. The official policy on gonorrhea was spelled out in September 1942, when the Army announced that only up to 2 percent of persons drafted for general service could be made up of men with uncomplicated gonorrhea. An increase in this percentage was to await the availability of more hospital and medical facilities for treatment. Very few venereals were drafted for limited service.²⁰

A real liberalization in the policy on induction of persons with venereal diseases became possible before the end of 1942 by the use of the sulfonamides and new treatment methods. In December, the War Department announced that it would permit, without drastic artificial limits, the induction of men with uncomplicated gonorrhea, acute or chronic, and syphilis, except the cardiovascular, cerebrospinal, and visceral types. Acceptable also were men found with uncomplicated chancroid.²¹ By this time, a large backlog of men previously rejected because of venereal disease was available for induction. For a few months, the scarcity of beds in hospitals and the new venereal disease treatment facilities at reception centers continued to limit the number of such cases that could actually be brought into the service, but by March 1943, some 7,000 men infected with venereal disease (approximately 2,500 of whom had gonorrhea) were inducted into the Army and subsequently treated in Army medical treatment facilities. In syphilis, it was not until after this date that larger numbers so afflicted could be inducted, because of the continuing shortage of treatment facilities. In some months of 1943, as much as one-third of the total Negro call was made up of previously rejected syphilitics in order to achieve a proportionate reduction in the backlog.

The induction of men with venereal disease reached its peak in the last quarter of 1943, when approximately 12,000 were inducted each month. By the end of the war, it was estimated that a total of 200,000 registrants with venereal disease had been inducted and treated in Army facilities, of whom 170,000 had had syphilis.²² These figures do not include all persons who had gonorrhea when first considered for induction because most of these were classified as acceptable

¹⁹ Letter, Lewis B. Hershey, Deputy Director, National Headquarters, Selective Service System, to The Adjutant General, War Department, 9 May 1941, subject: Induction of Venereals.

²⁰ National Headquarters, Selective Service System, State Director Advice (No. 77), 26 Sept. 1942, subject: Acceptance of Certain Classes of Venereals.

²¹ (1) Letter, The Adjutant General, War Department, to Commanding General, First Service Command, Services of Supply, 12 Dec. 1942, subject: Acceptance of Men With Venereal Disease. (2) Letter, Lewis B. Hershey, Director, National Headquarters, Selective Service System, to State Director Advice (No. 126), 17 Dec. 1942, subject: Acceptance of Venereals. (3) Memorandum No. W40-2-43, Maj. Gen. J. A. Ulio, The Adjutant General, War Department, The Adjutant General's Office, 19 Jan. 1943, subject: Treatment of Individuals With Uncomplicated Gonorrhea on Duty Status.

²² Karpinos, B. D.: Venereal Disease Among Inductees. Bull. U.S. Army M. Dept. No. 10, vol. VIII, pp. 806-820, October 1948.

for general service but were deferred for induction until their condition became asymptomatic. Short duration of the disease after treatment made induction without long delay possible. Induction policies on registrants with the active disease later covered those who might have acquired the disease to avoid the draft.

TUBERCULOSIS

The number of rejections for tuberculosis was relatively small throughout the mobilization and war periods, but the development of standards for the disease was considered very important. The objective of physical standards applicable to tuberculosis was to exclude all active cases and all those of doubtful stability that might have resulted in active disease or contagion during military service. Tuberculosis is apt to be progressive, but even in its minimal stage, it is a disease of unpredictable outcome, curable only with prolonged care. From the military point of view, tuberculosis not only requires personnel and facilities for treatment but also creates a liability to the Government in terms of lasting compensation and other benefits to which disabled servicemen are normally entitled.²³

At the same time, it was recognized that tuberculosis of minor extent frequently heals completely. For this reason, it would have been a waste of manpower to have rejected all persons showing traces of healed tuberculous lesions. Some means had to be developed for differentiating small lesions of definite stability, so that the individuals concerned could be accepted for service.

During World War I, standards were designed to exclude men with tuberculosis in active form. As a basis of diagnosis, stress was laid upon the physical signs characteristic of the disease. Most of the experience gained in World War I, in this connection, was incorporated in MR (Mobilization Regulations) 1-5, "Standards of Physical Examinations During Those Mobilizations for Which Selective Service is Planned," 5 December 1932. In the interval between 1932 and 1940, there was significant progress in the understanding of tuberculosis and enormous strides were made in the methods and techniques of detection, not least of which were advances in radiology. By 1940, it was evident to those concerned in the Surgeon General's Office that technical developments in the field of tuberculosis control called for drastic revision of the physical standards contained in MR 1-5, and a study of the problem was undertaken at an early stage.

Requirement for X-ray

During the tense period before mobilization in 1940, many organizations and individuals were urging The Surgeon General to adopt routine X-ray

²³(1) Long, E. R.: Exclusion of Tuberculosis. Physical Standards for Induction and Appointment. [Official record.] (2) For more information on tuberculosis, see Long, Esmond R.: Tuberculosis. In Medical Department, United States Army. Preventive Medicine in World War II. Volume IV. Communicable Diseases Transmitted Chiefly Through Respiratory and Alimentary Tracts. Washington: U.S. Government Printing Office, 1958, pp. 259-279.

examinations of recruits as a more positive means of excluding those with tuberculosis. These individuals included the managing director of the National Tuberculosis Association and the chairman of the Committee on Military Affairs of the American College of Chest Physicians. On 2 June 1941, the National Tuberculosis Association forwarded to The Surgeon General a resolution adopted by its board of directors advocating universal chest X-ray examination of all those recruited into the military services. In April 1941, *Time* magazine published an article captioned "TB Warning," which stressed the importance of chest X-rays in preventing the induction of men with pulmonary tuberculosis. This concern and the interest of professional societies, the press, and individual members of the medical profession, as well as of the general public, was regarded by The Surgeon General as helpful. Actually, the development of a chest X-ray program was already well underway in the Army. As early as 1935, routine X-ray examinations were given to oversea replacements at certain ports of embarkation. At the same time, The Surgeon General was on record as favoring chest X-rays in the final physical examination for a commission in the Regular Army, and for reservists applying for extended active duty.²⁴ In April 1939, a chest X-ray examination was included as part of the physical examination given to applicants before they could be commissioned as officers. Standards were relaxed for the purpose of accepting officers for limited service in other respects, but the requirement for a negative chest X-ray was not changed.²⁵

While preparations for mobilization were being made in November 1939, Col. (later Brig. Gen.) Charles C. Hillman, MC (fig. 9), then chief of the Professional Service Division, Surgeon General's Office, discussed the experience with detecting early tuberculosis in recruits during World War I. In a memorandum to the Executive Officer, Surgeon General's Office, he called attention to the inadequacy of an ordinary physical examination of the chest as a means of detecting early tuberculosis in recruits and draftees. He pointed out that X-ray examination was already practiced to a limited extent on recruits. Because of this, its application in the event of mobilization was being considered to include all recruits and draftees. To further this effort, he recommended that a board be appointed to investigate and report on the feasibility of making chest X-ray studies of all recruits and draftees.

Action on Colonel Hillman's proposal was swift. On the day following its submission, 14 November 1939, a board consisting of Colonel Hillman, Maj. (later Col.) Martin E. Griffin, MC, and Capt. (later Col.) Alfred A. De Lormier, MC, was appointed by The Surgeon General. The board was to investigate and report on the practicability and best method of making chest X-ray

²⁴(1) Indorsement, Col. E. R. Gentry, MC, Office of The Surgeon General, to The Adjutant General, War Department, 20 Sept. 1938. (2) Indorsement, Col. C. C. Hillman, MC, Office of The Surgeon General, to The Adjutant General, War Department, 21 Oct. 1939.

²⁵Letter, Col. John A. Rogers, MC, Office of The Surgeon General, to the Commanding Officer, Stark General Hospital, 23 Mar. 1942, subject: Waiver of Physical Defects For Limited Service Officers.



FIGURE 9.—Brig. Gen. Charles C. Hillman, MC.

examinations of all recruits and draftees, and to report on the estimated cost. On 14 August 1940, the board had completed its work and submitted a report to The Surgeon General. It developed that the principal problem the board had to deal with centered on the type of X-ray equipment it would recommend.

The Surgeon General reacted quickly to the report submitted by Colonel Hillman's board and, on 19 August 1940, he dispatched a memorandum to The Adjutant General entitled "Chest X-ray of Military Personnel." In this memorandum, he pointed out that a large proportion of cases of early pulmonary tuberculosis could be demonstrated only by X-ray examination. He recommended that radiological survey of all men in the Army be made immediately and that the chest X-ray be included later as part of the physical examination performed on all selectees before induction.

The Adjutant General was highly receptive to the recommendations and recognized the desirability of universal X-ray examination. At the time, however, mandatory X-ray examination was considered impractical. Instead, on 25 October 1940, he directed that a chest X-ray examination be given at induction stations to all registrants in whom underweight, pallor, abnormal chest findings, or suggestive personal or family history increased the likelihood of the presence of pulmonary tuberculosis. He directed, also, that, insofar as

existing roentgenological facilities at induction stations would permit, a chest X-ray be given to all other registrants, provided the examinations did not impede the flow of selectees through the induction process. Induction stations, located at other than Army installations, were authorized to arrange for use of State or civilian roentgenological laboratories.

On 18 November 1940, the Secretary of the Navy, the Secretary of the Interior, the Administrator of the Federal Security Agency, and the Administrator of Veterans' Affairs made their X-ray facilities available to assist in the induction examination process.²⁶

On 9 January 1941, The Adjutant General issued instructions that all applicants for voluntary enlistment, or reenlistment in the Regular Army and the National Guard of the United States, be given an X-ray examination of the chest. When facilities were not immediately available, the chest X-ray was to be given at the first station of assignment where facilities were available.

On 3 June 1941, X-ray examination of the chest was finally made a mandatory part of all physical examinations conducted at induction stations.²⁷ A more positive effort was to be made to exclude those individuals from service who were afflicted with pulmonary tuberculosis and with other significant intrathoracic defects (fig. 10).

Approximately 51 percent of all men sent to induction stations between October 1940 and March 1941 received X-ray examinations. For the overall war period, however, the percentage was greatly reduced. It was estimated that approximately 10 million men had the benefit of an X-ray examination, while hardly more than 1 million enlisted men were accepted without it. Many of these were later X-rayed at reception or basic training centers, where men found to have active tuberculosis were discharged.

Development of Physical Standards

In working out a more extensive use of chest X-rays, The Surgeon General was assisted by a committee on tuberculosis in the National Research Council. The Committee on Tuberculosis consisted of Drs. Esmond R. Long (fig. 11), its first chairman, J. Burns Amberson, Jr., who later became chairman, Bruce H. Douglas, Herbert R. Edwards, Paul P. McCain, and James J. Waring. The Committee's first meeting on 23 July 1940 was also attended by representatives of the Army, the Navy, and the U.S. Public Health Service.

The principal outgrowth of the first meetings of the Committee on Tuberculosis was an urgent recommendation that X-ray examinations be made a routine part of the examination of registrants under the Selective Training and Service Act of 1940. Moreover, the Committee recommended that mem-

²⁶ Letter, Maj. Gen. E. S. Adams, The Adjutant General, to Commanding Generals of All Corps Areas and Departments, 18 Nov. 1940, subject: Authorization for Use of Medical Facilities of Other Federal Agencies in Induction Examinations.

²⁷ Letter, The Adjutant General, War Department, to The Commanding Generals, All Corps Areas and Departments, 3 June 1941, subject: Routine Chest X-Rays on Induction Examinations.



FIGURE 10.—A selectee receives chest X-ray as part of his physical examination at Fort Douglas, Utah, March 1942.

bership of examining boards include specialists in the field of tuberculosis and that physical examination and laboratory study, where indicated, be used to supplement the X-ray findings of chest X-ray film. Behind the urgency of the recommendation was the consensus of those present that at least 75 percent of early active tuberculosis could be discovered only by X-ray examination and that approximately 1 percent of the male population then of military age were so afflicted.

A substantial part of the recommendations of the Committee on Tuberculosis were included in MR 1-9 of 1940. Specifically, active tuberculosis of



FIGURE 11.—Col. Esmond R. Long, MC.

any type was considered disqualifying. Tuberculosis of the lungs or tracheo-bronchial lymph nodes was considered disqualifying, with the exception of certain types of stabilized lesions which were considered unlikely to break down under military strain. The gravity of serofibrinous pleuritis in relation to tuberculosis was emphasized. It was pointed out, as in previous standards, that pleurisy, with or without effusion, is a frequent manifestation of early tuberculosis. Because of this, examining physicians were to exercise great care in evaluating registrants who apparently had recovered from pleurisy. Specific instructions were not issued at that time, however, with respect to excluding men with a history of pleurisy.

The first edition of MR 1-9 retained detailed instructions for examining the lungs by palpation, by percussion, and by auscultation. Because it was not possible, at that time, to make X-ray examination mandatory at all induction stations, it was necessary to provide the best examination possible without X-rays. Detail on the physical examination of the chest was much abbreviated in later editions of MR 1-9, when instructions were expanded with regard to tuberculous lesions of different types and degrees which might be found by X-ray.

After roentgenography did come into widespread use at induction stations, questions arose concerning the significance of large calcified lesions of arrested primary tuberculosis. Ordinarily, such lesions are recognized as well healed. Examiners at induction stations, however, encountered all grades of calcification, from barely perceptible nodules to huge incompletely calcified masses. Although it seemed reasonable to expect that competent roentgenologists and examining physicians could render decisions on the basis of combined clinical and X-ray examination, in practice this proved not to be the case. Induction was rapid, and there was relatively little time for careful weighing of clinical and X-ray changes. Moreover, the roentgenologists at induction stations were not all specialists in the field. These men frankly confessed their inability to make decisions on the basis of judgment alone. It was this uncertainty that prompted The Surgeon General to request the advice of the Committee on Tuberculosis in solving this problem. Although some members of the Committee, when it met on 17 May 1941, opposed issuing rigid specifications on the ground that clinical judgment might be subordinated to objective data, it was finally agreed that the needs of the service demanded precision. The Committee then recommended specific limits for those types of lesions most likely to be potentially hazardous.

The standards recommended later became the object of much criticism. It was thought that their overrigid application at induction stations may have excluded many obviously healthy men. In response to the criticism, The Surgeon General pointed out that examining physicians were directed by section I of MR 1-9 to use the standards as a "guide to their discretion and not to construe them too strictly or arbitrarily." In the case of calcified lesions, however, a review of the practices at individual induction stations revealed that, in many instances, standards were applied very strictly, without recourse to the liberalizing provisions made in October 1942. Subsequently, Selective Service was to reexamine all men who had been rejected for this cause alone.

MENTAL AND PERSONALITY DISORDERS

During the World War I period of 1 April 1917 to 31 December 1919, more than 97,000 Army patients were admitted to hospitals for neuropsychiatric diseases.²⁸ Nearly 50 percent of these individuals had to be discharged from the service. Moreover, records showed that in the same period, more than a half million registrants were rejected by Selective Service because of mental disorders. By 1940, the Veterans' Administration had paid nearly \$642 million in claims on neuropsychiatric cases arising out of World War I. This number constituted almost one-fifth of the total number of beneficiaries to whom claims were paid for all causes. Added to this was the cost of hospitalizing neuropsychiatric patients, which alone amounted to nearly \$300 million between 1926 and 1940.

²⁸ Circular Letter No. 19, Office of The Surgeon General, U.S. Army, 12 Mar. 1941.

As a result of this experience, the World War II planners considered it imperative that standards for mental and personality disorders be aimed at preventing neuropsychiatrics and potential neuropsychiatrics from entering the Armed Forces. The record of World War II experience in this area proved to be very much like that of World War I, however. During the mobilization period before the United States entered the war, more than 10 percent of those rejected were rejected for mental and nervous defects and 3.8 percent for educational deficiency.²⁹ Although rejection rates by cause fluctuated during the 1942-45 period, mental illness was responsible for the greater number of disqualifications. In all, an estimated 1,992,950 men, or more than 30 percent of all rejections, were found by Selective Service to be unfit for general duty because of mental and educational deficiency and neuropsychiatric conditions.³⁰

Of those who served in the Army during the war years, 1942-45, 379,486 were separated from the service for neuropsychiatric reasons. These accounted for 45 percent of all discharges for disability. An additional 356,000 were separated for inaptness, lack of required degree of adaptability, or enuresis.³¹

Standards

World War II standards stated that, to be effective in military service, an individual must have the capacity for sustained duty in the face of separation from home, regimentation, lack of privacy, extremes of climate, hunger, exhaustion, and threat of bodily injury. A basic premise was that an unstable individual forms a weak point in the military organization. He often breaks down under stress, endangering the lives of others in his unit as well as the national security. He is often an inefficient soldier, occupies hospital beds, and requires other personnel to care for him. Consequently, examining physicians were instructed to judge the fitness of registrants with these premises in mind.

In the March 1942 version of MR 1-9, a registrant was to be accepted for general service if he had marginal intelligence provided this was compensated for by better than average stability. A moderate degree of stuttering and stammering was also acceptable, provided speech was understandable and the individual was otherwise physically, intellectually, and emotionally fit. When MR 1-9 was revised in October 1942, those showing a moderate degree of compulsiveness or obsessiveness, in addition to those who stuttered and stammered, also were to be considered acceptable. Acceptability of the obsessive-compulsive was short lived, because it was removed from the standards in January 1943.

With certain exceptions, standards for mental and personality disorders underwent the most radical and constant change of any standards established in the regulation. All activity was coordinated with Selective Service, which made appropriate modification of its regulations to maintain consistency with

²⁹ See footnote 4, p. 16.

³⁰ See footnote 3, p. 16.

³¹ Health of the Army, Volume I, Report No. 2, Office of The Surgeon General, War Department, 31 Aug. 1946.

those of the Army. From a review of the standards in effect throughout the war, however, it is apparent that there was less difficulty in stating the classifications of acceptability or rejection than in applying them accurately to each individual examined, in the face of the variety of adverse influences brought to bear on the examining physician.

Examination of Registrants

The minimum psychiatric examination, included in Selective Service Medical Circular No. 1, dated 7 Nov. 1940, and in MR 1-9, was created with the understanding that the great majority of physicians making the psychiatric evaluation would be general practitioners. The same documents carried a warning about neuropsychiatric cases, stressing the fact that there was no place in the Armed Forces for the psychopath, the feeble-minded, or the insane.

In Circular Letter No. 19, issued on 12 March 1941, The Surgeon General amplified the point. The Army, he stressed, was not in any sense a social service or curative agency to be considered as a haven of rest for the wanderer or the shiftless. Neither was it a corrective school for the misfits, the ne'er-do-wells, the feeble-minded, nor the chronic offender. It was not to be considered either as a gymnasium for the training and development of the undernourished and the underdeveloped, or as a psychiatric clinic for the proper adjustment to the emotional development of adulthood. There was no place in the Army for the physical or mental weakling, the potential or prepsychotic, or the behavior problem. The circular made it clear that if an individual was a problem in the civilian community, he would most certainly become a more intensified problem in the service. The examining physician was then cautioned that, while these facts were brought to his attention, he was not to interpret them as a basis for lightly rejecting individuals for military service. They were rather to be construed as points upon which to evaluate men being examined with the view to eliminating the unfit and to retaining those capable of satisfactorily performing the duties of a soldier.

The procedure was tightened in 1942 by requiring that psychiatric examinations be given only at induction stations, where trained psychiatrists were regular members of the examining teams. The general practitioners who served as examining physicians at the local board level were instructed to reject for mental conditions only those registrants about whom there could be no doubt.

Induction Station Problems

During 1941, and in the early part of 1942, a constant effort was made to improve neuropsychiatric screening at induction stations. Many factors were operating to make this a difficult task. The induction of large numbers as rapidly as possible was an important factor. As a result, the time allowed for

accomplishing the examination was unrealistically short, routinely less than 15 minutes. Examining physicians were handicapped by a lack of adequate historical information on the registrants sent to induction stations by local boards. To further complicate the problem, there were not enough adequately trained neuropsychiatrists in many areas. As with other medical specialists, the bulk of the workload in connection with neuropsychiatric selection was handled by the civilian psychiatrists available in the respective areas. Most of these had little or no military experience to assist them in deciding which person might be expected to make a satisfactory adjustment to military life. Moreover, local boards, when hard pressed to fill their quotas, would return for induction men who had been rejected previously, sometimes more than once. In some instances, even former mental hospital patients were sent for induction. There were also instances of individuals who had been discharged from other services for neuropsychiatric reasons being sent for induction into the Army without this essential background information being made available to the induction board.

There was no test so perfect that it would detect all potential neuropsychiatric casualties. Many who would later crack made an excellent impression during a brief examination, while others, already afflicted, managed to conceal their histories and their existing conditions. If the screening was too strict, the rejection rate would be unrealistically high; if it was not strict enough, the Army and the entire war effort would suffer by the induction of the mentally unfit. A further problem was imposed by the physical and emotional immaturity not infrequently found in the 18- to 20-year-old age group.

Where the requisite specialists were not available to staff induction stations, the Army tried, whenever possible, to fill the gap by assigning medical officers who had had some psychiatric training. It was observed that, at induction stations where neuropsychiatrists were utilized, the rejection rate, based on psychiatric grounds, was higher than at those stations which were not so supported, but even the well-trained psychiatrists were at a disadvantage because of their inexperience with military requirements.

The War Department and The Surgeon General issued directives and instructions in a continuing stream to all agencies in the field. These communications were aimed at clarifying and adjusting standards, and at calling attention to the need for careful examination. This was done with the realization that, while regulations and directives could be issued and enforced, nothing could substitute for sound professional judgment.

The medical history of each inductee was another area for special emphasis. The Surgeon General urged Selective Service to provide medical data on each selectee sent to induction stations as a means of giving added substance to psychiatric as well as to medical evaluations. The National Headquarters of the Selective Service System, on 28 November 1941, did request local boards to furnish this information to examiners, but the desired records were in fact rarely obtained. It was because of this inertia on the part of local boards that Selective

Service finally inaugurated its own medical survey program, outlined in Medical Circular No. 4 of October 1943.

Under the procedure established, the State Director of Selective Service assigned to each local board a medical field agent who was made responsible for seeking information about registrants from any source specified by the State Director of Selective Service. Normally, information was obtained from personal or private physicians, social service exchanges, hospitals and clinics, public or private social agencies of recognized standing, the U.S. Employment Service, present or former employers, public or private schools, and correctional institutions or agencies. Great emphasis was placed on the need for accurate information, which was to be divided into medical, social, and educational, as recorded in the secondary school records. The information was handled confidentially and was forwarded to the appropriate induction station without the registrant's knowledge. When it had served its purpose, it was returned to the State Director of Selective Service.

Change in Approach to Evaluating Neuropsychiatric Disorders

As the war progressed and experience accumulated, strong evidence indicated that many individuals with minor personality disorders and mild neurotic trends could still be useful in the Armed Forces. This fact, coupled with the ever-increasing need for manpower, prompted a change in approach in neuropsychiatric evaluation. In April 1944, the War Department issued TB MED (War Department Technical Bulletin) 33 laying down new guidelines for the induction station neuropsychiatric examination. The important change was a modified view of those with mild neuropsychiatric conditions. Rejection was still to be based on findings of mental and personality disorders which findings were to take into account the individual's history as well as the examination being given for induction, but all individuals having a "reasonable chance," liberally interpreted, of adjusting to military life were to be admitted into the armed services. Only a definite indication of a past or present, partially or completely incapacitating mental or personality disorder was to be considered as a cause for rejection.

Examining physicians were instructed at the same time to exercise care in labeling a registrant with a diagnostic term which might in some way be injurious to him. Admittedly, both information and time were frequently inadequate to establish an accurate diagnosis. For example, although symptomatology or behavior might warrant disqualification of the registrant, the examiner was warned that these might not be sufficiently well crystallized to permit diagnosis of an actual disease entity. It was emphasized that each diagnosis must be based upon adequate historical and clinical evidence. When the diagnosis was one not included in the standards, separate terminology was prescribed to avoid injurious language, but still identify the condition.

Neuropsychiatric Screening Adjunct Test

To further the goal of detecting and eliminating registrants with certain psychiatric disqualifications, the Neuropsychiatric Screening Adjunct test was adopted in October 1944 for use at all induction stations. Because physicians making the psychiatric examination saw every registrant, the amount of time given to each one was necessarily limited. The screening test was designed to extend the psychiatrists usefulness by enabling him to give more time to the most difficult cases. It was not intended as a substitute for psychiatric examination. As used in the induction stations, the Neuropsychiatric Screening Adjunct test was to identify the group which were potential neuropsychiatric casualties. When this was done, the individuals were referred to the psychiatrist for individual diagnosis.

If the test results showed that the individual did not suffer maladjustments, it was hoped that the examination by the psychiatrist could be perfunctory. In fact, in situations when the rate of processing through the induction station was unusually high, it was hoped that the examining psychiatrist could place full reliance on the test.

The Neuropsychiatric Screening Adjunct test was adopted by the Army in October 1944, although it had not been fully evaluated at that time. In July 1945, all induction stations in the United States were instructed to keep a daily record of the test scores of all men receiving preinduction physical examinations during the remaining months of 1945. Depending on the results, each man was to be classified into one of seven groups, according to disposition. As it developed, however, the pace of inductions slowed considerably during August, because the war ended in that month. So far as is known, the Neuropsychiatric Screening Adjunct test was not used to replace the individual examination of the examining psychiatrist. The extent to which examining psychiatrists were in favor of its use is not known, because the test was administered, principally, by psychologists, and not enough experience was developed for a total evaluation.

Special Studies

During the war years, data were collected and studied by Fry and Rostow,³² under the auspices of the National Research Council, concerning the performance in military service of men from Yale and Harvard Universities who were treated for psychiatric difficulties while students at those institutions. The diagnoses made while they were students ran the gamut from psychoneurosis and sexual perversion to psychosis. These studies revealed considerable incongruity between predicted and actual rates of failure in military service. A great number who turned in creditable records, including many who served as officers,

³² Fry, C. C., and Rostow, W. G.: Reflections on the Problem of Psychoneuroses. Interim Report to the Committee on Medical Research of the Office of Scientific Research and Development, 31 Oct. 1945.

would never have been recommended for military service by the psychiatrists who saw them during their student years.

Another study reviewed the discharges of 174 enlisted Navy personnel who had been rejected on neuropsychiatric grounds at least once but were later accepted for service. Only 20, or 11.5 percent of the total, were discharged for psychiatric reasons, including unsuitability and dishonorable. Of the remaining 88.5 percent, some were discharged for nonpsychiatric physical disabilities incurred in the service; the others received routine honorable discharges. A study made after World War II at National Headquarters, Selective Service System, under the supervision of the chief medical officer, revealed that of 2,054 men studied who were rejected at some time for neuropsychiatric reasons, and who later served in the Army, 79.4 percent, or 1,630 of the total, rendered satisfactory service.³³

All these studies, plus the records of rejections and separations for mental causes, indicate that the Army's standards on mental defects and deficiencies were inadequate and ineffectively administered. Many who might have served creditably were rejected at selective service local boards or at Armed Forces induction stations, while others (more than one-third of a million) who were inducted were later separated from the Army for mental defects.

CONCLUSIONS

After the United States committed troops to battle in World War II, an Army of 10 million men was mobilized. An Army of such size, if it was also to exclude a civilian force large enough to feed and equip it, was possible only after changes to existing policies on physical and mental requirements were made. The most significant changes included the decision to induct men with certain defects, who could make a positive contribution only after rehabilitation or in specialized and limited assignments. The greatest numbers of additional men came from groups that could function effectively only after dental work had been accomplished, after spectacles had been furnished, or after treatment for venereal disease.

Meticulous care was taken in creating standards on tuberculosis in order to avoid the induction of tuberculars.

The greatest problem in the standards, however, was in those devised to exclude mentally defective or deficient persons. Mental defects led the list of causes for rejection during the war, yet they were also responsible for the greatest number of discharges for disability.

³³ See footnote 3, p. 16.

CHAPTER III

Mobilization Standards and Procedures for Officers and Special Categories

Approximately one million officers served in the U.S. Army for some time during World War II. These were gathered from various sources. On 27 August 1940, Congress authorized the President to order members and units of Reserve components and retired personnel of the Regular Army into active military service.¹ Besides these Reserves (which included the National Guard) and the Regular Army, the other primary sources of officer personnel were the military training schools. These were the schools established for the sole purpose of training officers including the United States Military Academy, which supplied officer personnel for the Regular Army; officer candidate schools for eligible enlisted men; and the Reserve Officers' Training Corps, established and maintained in civilian institutions.

OFFICERS' RESERVE CORPS AND NATIONAL GUARD

Examining Procedures

Examinations of Reserve officers were of three types: (1) Preliminary, (2) final-type, and (3) terminal. Examinations were to be very much the same for all categories, but in some instances, a preliminary examination did not include all the laboratory tests of a final-type examination. Originally, a Reserve officer ordered to active duty for an initial tour in excess of 30 days was given a preliminary examination not more than 90 days before entry on active duty. This was to be as thorough as possible to avoid expense and inconvenience to the individual and to the Government. If applicants lived near an Army hospital or dispensary equipped with X-ray, electrocardiographic, and laboratory facilities, they were directed to report there for a preliminary examination. An examination by a Regular Army medical officer was considered desirable, but if this was not practicable, corps area commanders were to designate a medical officer of the Reserves to conduct it. Agencies issuing orders placing Reserve officers on active duty in excess of 30 days were to advise commanding officers of the Reserve officer's first active-duty station whether or not a final-type examination had been given within 30 days of the effective date of active-duty orders. In the absence of such notification, final-type examinations were to be given when the officer reported for active duty.

¹ Public Res. 96, 76th Congress, approved 27 Aug. 1940.

If the preliminary examination did not disclose disqualifying defects, the officer was ordered to active duty. When this examination did not definitely disqualify, but indicated a doubt in final qualification, the Reserve officer could, if he desired, go to an Army hospital or other Army medical facility at his own expense, where a final-type examination could be accomplished.

In November 1940,² information reaching the War Department indicated that problems were arising out of differences in the results of preliminary and final-type examinations. In some cases, Reserve officers receiving two examinations within the first 30 days after entry on active duty were being relieved from duty because of different findings in the second examination. As a result, the War Department modified its instructions to provide that the results of preliminary examinations be final, with respect to qualification for active duty, if examining boards had been properly appointed and constituted. Recommendations of any succeeding examining boards were to be based solely upon those parts of the second or final-type examination that were not within the scope of the preliminary examination. Examples of these were given as chest X-rays, electrocardiography, or serological tests. Finally, on 28 December 1940, the War Department instructed that no second examination, except a check for intervening illnesses, was to be required if the preliminary examination was of the final type.³ It was required, at that time, however, that the officer report within 60 days of the original examination. Otherwise, another complete examination was called for. This interval fluctuated, but was finally stabilized at 90 days in March 1943.

Under procedures introduced in December 1940, examinations given before actual entry upon active duty were to be at the option, and upon request of the individual concerned. Because no funds were available for these purposes, such examinations were to be given without expense to the Federal Government for travel or pay.

Terminal examinations were given when Reserve officers were relieved from active duty. They were to be identical to the final-type examination except that serological tests for syphilis were not required.

Procedure Problems

Mobilization was still almost a year away when the War Department, in January 1940, pending revision of pertinent Army regulations, issued instructions governing physical standards and examination of officers of the Reserve

² Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to Each Corps Area and Department Commander; Each Chief of Arm and Service; Chief of the National Guard Bureau; and Commanding General, Armored Force, 9 Nov. 1940, subject: Physical Examinations and Waivers.

³ Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to Each Corps Area Bureau, 28 Dec. 1940, subject: Physical Standards and Physical Examinations.

components. These instructions were to supplement those already existing and were to supersede them when appropriate.⁴ They provided that the same high physical standards for officers of the Regular Army apply as well to those of the Officers' Reserve Corps and the National Guard, except that visual standards were to be lower. Specifically, visual standards were to be the same as those prescribed for commission in the Medical Department and Corps of Chaplains of the Regular Army. At that time, these visual standards were fixed at 20/200 in each eye, corrected to 20/20 in one eye, if a myopia or myopic astigmatism; and 20/50 in each eye, corrected to 20/20 in one eye, if a hyperopia or hyperopic astigmatism (appendixes C, p. 209; D, p. 249; E, p. 259).

Many discrepancies in policy and procedure were uncovered in 1940 and 1941, which enabled the Army to put them right before the country went to war. For instance, before 22 May 1940, physical standards for retention of members of the Officers' Reserve Corps in an active status were the same as those for appointment.⁵ On that date, however, the War Department raised physical standards for retention in an active status. On 2 July 1940, standards were raised also for appointment and, again, for retention in an active status. In due course, retroactive changes to AR (Army Regulations) No. 40-100, "Standards of Miscellaneous Physical Examinations" and AR 40-105, "Standards of Physical Examination for Entrance Into the Regular Army, National Guard and Organized Reserves," were made, principally with respect to vision. As a result, many officers fully eligible for retention on active duty on one day, found themselves disqualified on the next. Many officers of the National Guard were similarly affected. To correct this, the War Department nullified the retroactive aspects of their instructions with respect to vision of National Guard officers, but failed to give like consideration to members of the Officers' Reserve Corps. Consequently, instructions were approved for dispatch on 18 March 1941 to equalize standards of visual acuity for both Reserve and National Guard officers. These standards provided that Reserve officers appointed before 2 July 1940 could be retained in the active section of the Officers' Reserve Corps and that they could qualify for extended active duty, with vision of 20/200 in each eye, correctable with glasses to 20/20 in one eye, if no organic disease of either eye existed. Uncorrected visual acuity below 20/200, bilateral, was not to be acceptable. These instructions, published on 22 March 1941, were presented as an authority to waive visual requirements set forth in AR 40-100 rather than as an exception, or change, to the regulation itself.⁶

⁴ Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to Each Corps Area and Department Commander; Each Chief of Arm or Service; and to the Chief, National Guard Bureau, 30 Jan. 1940, subject: Physical Standards and Physical Examinations.

⁵ Memorandum, Brig. Gen. Wade H. Haislip, Assistant Chief of Staff, G-1, for the Chief of Staff, 5 Mar. 1941, subject: Physical Disqualification of Members of the Officers' Reserve Corps.

⁶ Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to All Corps Area and Department Commanders, 22 Mar. 1941, subject: Physical Standards of Reserve Officers Under Paragraphs 18b, AR 40-105, and 16a (1), AR 40-100.

Confusion about the disposition of physically unqualified officers on active duty persisted, however, until 17 April 1941.⁷ On that date, the Adjutant General's Office issued a directive that no officer of the Reserve component on extended active duty was to be relieved because of any disability incurred or disclosed after he had been found physically qualified for active duty, or found physically disqualified and defects waived, except upon specific authority of the Secretary of War. Corps area and department commanders were to continue to relieve officers found physically disqualified at the time of physical evaluation for active duty, of course.

Increased Manpower Requirements

Increased requirements for manpower quickly led to modifications in procedures and standards. On 6 February 1941, the need for additional medical officers was pressing. Consequently, The Surgeon General made recommendations to The Adjutant General, approved on 20 February 1941, which lowered minimum requirements of height and weight to 60 inches and 105 pounds, respectively, for appointment of officers in the Medical Corps Reserve.⁸

By January 1942, an urgent necessity arose to increase strengths of officer personnel in supply arms and services to handle the enormous material procurement demands of the War Department. War Department policy was changed so as to approve for appointment, or extended active duty, individuals then qualified only for limited assignments.⁹ Included were individuals with minor physical defects which would disqualify them under existing physical standards but would not interfere with satisfactory performance of noncombat duties. These defects, however, were to be stationary in character and not likely to be aggravated as a result of active military service. In order that the provisions of this policy were carried out in a uniform manner, the Surgeon General's Office on 30 January 1942, issued a list of defects considered acceptable for limited service, supplemented by a list of those that could be waived for general service.¹⁰ Such lists were revised and reissued periodically throughout the war period.

⁷ Letter, Brig. Gen. J. A. Ulio, Acting The Adjutant General, War Department, to Each Corps Area and Department Commander, 17 Apr. 1941, subject: Physical Disqualification of Reserve Officers.

⁸ Letter, The Adjutant General, War Department, to The Surgeon General, 20 Feb. 1941, subject: Appointment in the Medical Corps Reserve.

⁹ Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to Each Corps Area and Department Commander; Each Chief of Arm or Service; to the Chief, National Guard Bureau; and to the Commanding Officers, All General Hospitals, 7 Jan. 1942, subject: Waiving of Physical Defects for Limited Service Officers of the Supply Arms and Services.

¹⁰ Letter, Lt. Col. John A. Rogers, Executive Officer, Office of The Surgeon General, to The Surgeon, Hawaiian Department, Fort Shafter, T.H., 30 Jan. 1942, subject: Waiver of Physical Defects for Limited Service Officers. [Letter also sent to Surgeons, All Corps Areas and Departments, except Philippine Department; Commanding Officers, All General Hospitals, except Sternberg General Hospital; Chief, Medical Division, Office of Chief of Air Corps.]

In the list issued on 30 January 1942, defects considered acceptable for limited service were generally as follows:

1. Overweight to 25 percent above average weight for age and height, and underweight to 15 percent below ideal weight, provided chest X-ray is negative for pulmonary pathology and other chronic disease is carefully excluded.

2. Vision 20/400 in each eye, corrected with glasses in possession of the examinee to 20/20 in one eye and to at least 20/40 in the other, provided no organic disease of either eye exists.

3. Blindness, or vision below 20/400, in one eye, with vision 20/100 corrected with glasses in possession of the examinee to 20/20 in the other, provided that there is no organic disease in the better eye and no history of cataract or other disease in the more defective eye, which might be expected to involve the better one; and provided in case one eye is missing, the individual is fitted with a satisfactory artificial replacement.

4. Complete color blindness.

5. Hearing 5/20 in each ear for low conversational voice, or complete deafness in one ear with hearing 10/20 or better in the other, provided the defect is not due to active inflammatory disease and is stationary in character.

6. Chronic inflammation of the middle ear (otitis media) inactive, with perforation of the eardrum, provided there is a trustworthy history of freedom from activity for the preceding 5 years.

7. Old fracture of the spine or pelvic bones which has healed without marked deformity, provided there is a trustworthy history of freedom from symptoms during the preceding 2 years.

8. Loss of one hand, one forearm, or one lower extremity below the junction of the middle and lower thirds of the thigh, provided that the lost member is replaced with a satisfactory artificial limb.

9. Abnormally low or high longitudinal arches (pes planus, pes cavus), or one form of clubfoot (talipes equinus), provided the condition is asymptomatic and does not interfere with normal locomotion.

10. History of bone inflammation (osteomyelitis) following fracture, provided X-ray indicates complete healing and there have been no symptoms of the condition for the preceding 5 years.

11. Joints fixed or limited in motion, provided the condition is the result of injury and not a symptom of disease.

12. History of excision of torn or detached semilunar cartilage of knee joint, provided there is normal stability of the joint and a period of one year with complete freedom from symptoms has elapsed since the operation.

13. Residuals of anterior poliomyelitis, without marked deformity or loss of function, originating 2 years or more before examination.

14. Varicose veins, moderate, without edema or discoloration of skin.

15. History of gastric or duodenal ulcer, provided there is a trustworthy history of freedom from activity during the preceding 5 years and provided that gastrointestinal X-ray at the time of examination is negative.

16. Incomplete inguinal hernia.
17. Small asymptomatic congenital umbilical hernia.
18. Absence of one kidney, provided its removal has been necessitated by other than tuberculosis or malignancy, and the other kidney is normal.

The following defects were considered unacceptable for any type of service:

1. History of malignant disease within the preceding 5 years.
2. Active tuberculosis of any organ and inactive pulmonary tuberculosis except as described.
3. Syphilis, except adequately treated syphilis as described.
4. Old fracture of the skull with bony defect greater than 2 cm. in longest diameter or with history of accompanying mental or neurologic complications.
5. Instability of any of the major joints.
6. History of bone inflammation that has spread to organs, tissues, or other nonbony parts of the body (metastatic osteomyelitis) with prolonged or recurrent drainage, regardless of duration.
7. Arthritis of the atrophic type (rheumatoid).
8. Any cardiovascular condition which disqualified for general service.
9. History of any of several types of intestinal operation (gastroenterostomy, gastric resection, intestinal anastomosis, or operation for intestinal obstruction).
10. History of any of several types of prostate operation (prostatectomy or transurethral resection of prostate, or of prostatic hypertrophy of any degree).
11. Chronic endocrine disease, except mild hypothyroidism or mild genital adiposity (Fröhlich's syndrome).
12. Certain forms of diabetes (diabetes mellitus of any degree of renal glycosuria).
13. History of any psychosis.
14. History of severe psychoneurosis at any time, or psychoneurosis of any degree if it has been recurrent or has shown symptoms within the preceding 5 years.

Defects recommended for general military service with waiver were the following:

1. Minimal inactive lesions of primary or reinfection-type pulmonary tuberculosis. These lesions may consist of—
 - a. Calcified residues of lesions of the intrathoracic lymph nodes, provided none of these exceeds an arbitrary limit of 1.5 cm. in diameter and the total number does not exceed five.
 - b. Calcified lesions of any functional element of the lungs (pulmonary parenchyma), provided the total number does not exceed 10, one of which may equal but does not exceed 1 cm. in diameter, but none of the remainder may exceed 0.5 cm. in diameter. (Note: The lesions described in (a) and (b) just

cited should appear sharply circumscribed, homogeneous, and dense. Measurements refer to standard 14- by 17-inch direct project roentgenograms.)

c. Small fibrotic parenchymal lesions represented in the roentgenogram as sharply demarcated strandlike or well-defined small nodular shadows not exceeding a total area of 5 square centimeters, provided that acceptance is deferred until subsequent examination demonstrates that the lesions are stationary and are not likely to be reactivated. The minimum period of time to determine this is 6 months. It must be recognized that either progression or retrogression of the lesion indicates activity.

2. Confirmed positive serological tests for syphilis with no clinical evidence of the disease, with convincing histories of a trustworthy diagnosis of syphilis, or with reliable histories of treatment for the disease on serological or clinical grounds provided—

a. That a negative spinal fluid since infection and treatment had been reported from a trustworthy source.

b. That in infections estimated to be of less than 4 years' duration, at least from 30 to 40 arsenical and from 40 to 60 insoluble bismuth injections or their equivalent, with a minimum total of 75 injections, have been given, with approximate continuity (no rest periods or lapses) during the first 30 weeks of treatment.

c. That, except as further qualified in infections estimated to be of over 4 years' duration, at least 20 arsenical injections and from 40 to 60 insoluble bismuth injections or their equivalent, with a minimum total of 60 injections, have been given in alternating courses, rest periods between consecutive courses not exceeding 8 weeks being allowable.

In infections of unknown duration, it shall be presumed for classification purposes that infections of individuals under 26 years of age are of less than 4 years' duration, and that those of individuals over 26 are of more than 4 years' duration. (Note: For the determination of treatment, the signed statement of acceptable treatment sources administering it, with total doses of each drug and approximate calendar dates of administration and available laboratory and clinical data, shall be required as evidence.)

3. Overweight to 20 percent above average weight for age and height, and underweight to 12.5 percent below ideal weight provided chest X-ray is negative for pulmonary pathology and other chronic disease is carefully excluded.

4. Insufficient incisor or masticating teeth, provided the mouth is free from extensive infectious processes and the examinee is wearing satisfactory dentures.

5. Pilonidal cyst or sinus, provided there is no palpable tumor mass, no evidence of purulent or serous discharge, and no history of previous discharge or inflammation.

6. History of healed fracture with bone plates, screws, or wires used for fixation of fragments still in situ, provided X-ray shows no evidence of osteomyelitis and no rarefaction of bone contiguous to the fixative materials; that such fixative materials are not so located that they will be subjected to pressure from

military clothing or equipment; and that a year has elapsed since their application.

7. History of operation or injection treatment for inguinal or small ventral hernia, provided that examination 3 months or more following operation, or following the last injection, shows a satisfactory results.

8. History of kidney stones (unilateral renal calculus), provided the condition has been asymptomatic for the preceding 3 years, urine examination is negative, and roentgenological examination (flat plate) of both kidneys is negative.

9. Absence of the spleen, provided its removal has been necessitated by a crushing injury.

10. History of removal of the gallbladder (cholecystectomy), provided the condition has been asymptomatic for the preceding 2 years.

By August 1942, considerable difficulty was being experienced in keeping pace with demands for manpower, both officer and enlisted.¹¹ Commanding generals of service commands were advised that the possibility of having to discharge for disability some individuals after induction into the service, with the further possibility of subsequent claims against the Government, was of minor importance compared to the necessity of immediately inducting the maximum number of qualified registrants into the Army. This and similar actions were considered by the Surgeon General's Office as part of a constantly growing demand to lower physical standards. Concern over the influence of these instructions on physical evaluation of officers could not be avoided.¹²

In November 1942, a revision of AR 40-100 was issued, which contained a complete list of defects for which waivers could be recommended (appendix D, p. 249). This revision permitted officers, Army nurses, and warrant officers of Reserve components with any of the defects listed to be accepted for limited service. Conditions not enumerated, but similar to those given, and which were borderline in nature, were to be evaluated on a similar basis.

Waiver of Physical Defects

Before massive increases in manpower made it imperative that officers be accepted for limited service, the rigid physical standards were being infringed upon and lowered through grants of waivers for general service. The War Department instructions of January 1940 provided that waivers of physical defects would be granted only by the War Department. Moreover, waivers granted before that date would not be considered binding. This was in keeping with the policy of that period that only the most highly qualified would serve on active duty.

¹¹ Memorandum, Col. Oscar B. Abbott, GSC, Director of Military Personnel, for The Adjutant General, 10 Aug. 1942, subject: Recruiting and Induction Examination.

¹² Memorandum, Brig. Gen. C. C. Hillman, War Department, for General Love, 15 Aug. 1942.

On 3 July 1940, the Secretary of War approved a recommendation of The Surgeon General to permit commanding generals of corps areas to grant waivers to underweight or overweight Reserve officers being ordered to active duty.¹³ Corps area commanders were authorized to approve waivers for underweight to 12.5 percent below the ideal weight, provided chest X-rays were negative for pulmonary pathology. Overweight could be waived to 20 percent above the average weight for the respective height and age.

The policy on waivers was liberalized somewhat more in September 1940 when a little more authority was given to corps area and department commanders,¹⁴ and then in November, the War Department instructed these commanders to grant reasonable waivers where the interest of the Government or of the military service would not be compromised.¹⁵ The latter directive applied to examinations given after entry upon active duty. Those delegated authority to grant waivers were enjoined to exercise this authority when physical defects would not interfere with satisfactory performance of field duties and when the nature of the defect was such that it was not likely to be aggravated to a disabling degree as a result of active military service.

Waivers were to be granted under the 9 November 1940 instructions only upon written request of the individual concerned. In National Guard officers, waivers were to be granted upon recommendation of division or separate unit commanders, made on the requests for waivers forwarded by the individuals concerned. Each request for waiver was to be accompanied by an affidavit from the individual acknowledging that waived defects had existed before entry into active military service and were not the result of such service.

When the 28 December 1940 instructions on physical standards and physical evaluation of Reserve officers were issued, corps area and department commanders retained the same authority to grant waivers as specifically delegated by the War Department. These instructions were more or less a summary of those issued after 30 January 1940. On 11 January 1941, that portion of instructions dealing with the request for waivers was modified, and corps area and department commanders not only were authorized to grant waivers submitted on the initiative of individuals but also were further authorized to request individuals to submit requests for waivers. This applied in those cases where, in the absence of a request for waiver submitted on the initiative of the individual concerned, corps area or department commanders believed that waiver of a defect was appropriate.¹⁶

¹³ Memorandum, Maj. Gen. E. S. Adams, The Adjutant General, War Department, for Assistant Chief of Staff, G-1, 29 June 1940, subject: Waiver by Corps Area Commanders of Underweight or Overweight Reserve Officers Called to Active Duty.

¹⁴ Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to Each Corps Area and Department Commander; Each Chief of Arm or Service; and to the Chief, National Guard Bureau, 6 Sept. 1940, subject: Physical Standards and Physical Examinations.

¹⁵ See footnote 2, p. 44.

¹⁶ (1) See footnote 3, p. 44. (2) Letter, Maj. Gen. E. S. Adams, The Adjutant General, War Department, to Each Corps Area and Department Commander; Each Chief of Arm or Service; and to the Chief, National Guard Bureau, 11 Jan. 1941, subject: Physical Standards and Physical Examinations.

The finality of physical examinations given, to include waivers granted therewith, was reemphasized in March 1942.¹⁷ Once an officer began active duty, after proper examinations, evaluations, and approval, he was not to be re-examined or hospitalized unless he was to be relieved from active military service or his physical condition was such that he could not perform efficiently in the position to which he was assigned. Thus, by November 1942, when waivers for limited service were included in AR 40-100, the policy on waivers was already fairly liberal toward the individual officer.

Disqualification and Appeals

War Department instructions of January 1940, covering physical standards and physical examinations, required that reports of physical examination be forwarded to The Adjutant General when an examination disclosed disqualifying defects. The War Department then took final action on the appointment or discharge of the Reserve officer concerned.

On 6 September 1940, the first definitive instructions were published concerning Reserve officers disqualified for service.¹⁸ A Reserve officer found disqualified in a final-type examination was accorded certain rights of appeal. Otherwise, he was promptly relieved from active duty and ordered to his home. If disqualifying defects were found in the preliminary examination, the officer was accorded the right of reexamination. If he declined the second examination, the report for the preliminary examination was to be forwarded to The Adjutant General for appropriate action.

When terminal examinations disclosed a disability entitling the officer to disability retirement benefits, he was ordered to an Army general hospital for observation and treatment. On 28 December 1940, when revised instructions on physical standards and physical examinations were published,¹⁹ it was emphasized that only the War Department and corps area and department commanders were authorized to adjudge an officer physically disqualified for extended active duty. Consequently, only these authorities could authorize relief from extended active duty for physical disqualification. An officer already on extended active duty, who was found physically disqualified as a result of a final-type examination, was to be retained on active duty if an appeal or request for waiver had been initiated. Those found disqualified without waiver were either to be placed in the Inactive Reserve or to be honorably discharged by The Adjutant General.

When the War Department delegated authority to corps area and department commanders to make final determination of acceptance or rejection of

¹⁷ Letter, Maj. Gen. J. A. Ulio, The Adjutant General, War Department, to Commanding Generals of All Armies, Army Corps, Divisions, Corps Areas, and Departments; Chiefs of Arms and Services, Commanding Officers of Exempted Stations; Chief, National Guard Bureau; and to Commanding Officers, All General Hospitals, 6 Mar. 1942, subject: Physical Standards and Waivers for Physical Defects.

¹⁸ See footnote 14, p. 51.

¹⁹ See footnote 3, p. 44.

Reserve and National Guard officers in uncomplicated cases, together with certain authority to grant waivers, appeal boards were to be established to satisfy the individual's right to appeal. The revised instructions of 28 December 1940 also made the right to appeal retroactive to 6 September 1940 for officers who were then on an inactive status and had not been discharged.

Officers found with disqualifying defects were to be so informed by the appropriate corps area or department commander. A notice was to be furnished the officer concerned, which was to include the specific defect or defects for which the officer was disqualified. At the same time, the notice was to include advice to the officer of his right to appeal. Those submitting appeals, whether in the Active or Inactive Reserve, did so with the understanding that cost of travel, pay, and subsistence in the hospital, if hospitalization was indicated during the appeal examination, was to be at their own expense.

The medical appeal boards were to consist of two or more medical officers of mature experience and judgment; they were to be officers other than those serving on examining boards making physical evaluations of Reserve and National Guard officers.

Medical appeal boards were to limit their examinations to the disqualifying defects reported by examining boards. Where practicable, the place of examination by medical appeal boards was to be a hospital or dispensary other than the one in which the officer making the appeal was originally examined.

Action on appeals by corps area or department commanders was to be final. The one exception to this was the case of flying officers, action on whose cases had been reserved by the War Department.

UNITED STATES MILITARY ACADEMY

Standards for the United States Military Academy, for practical reasons, always had been maintained at a high level. Physical standards for appointment to the Academy were established in AR 40-100 (appendix D, p. 249) and, with minor exceptions, were identical to those set forth in AR 40-105 (appendix C, p. 209) for appointment in the Regular Army. The standards for eyes and vision, ears and hearing, and dental were higher for appointment to the Academy than those for a Regular commission. The standards applied not only to candidates for admission but also to applicants for enlistment who expected, ultimately, to enter the Academy.

OFFICER CANDIDATE SCHOOLS

The first Army regulation covering the subject of officer candidate schools, AR 625-5, "Officer Candidates," was issued on 26 November 1942. Before that time, a series of War Department circulars had been issued which established and governed operation of these schools, and by the time AR 625-5 was published, 18 such schools were in operation, training men to qualify

for commission in the Army of the United States. The age limits for officer candidate school applicants were from 18 to 46 years, and a mental score of 110 or higher in the Army General Classification Test was required for acceptance. All applicants were required to have a final-type physical examination.

With certain modifications, physical standards by which officer candidates were evaluated were to be those previously established for Reserve officers. The initial exception was height, which was to be that established for selectees under the first mobilization regulation. On 24 March 1942, a further exception was made by War Department Circular No. 86, which lowered the dental and visual requirements. Individuals were to be accepted with a minimum of three serviceable natural masticating teeth above and three below, together with three serviceable natural incisors above and three below, so opposed as to serve the purpose of mastication and incision during excursions of the mandible. Individuals were to be accepted even though the teeth described were not in actual contact when the mandible was at rest in centric occlusion. Instead of this, individuals could be accepted with a minimum of an edentulous ridge in the upper jaw, corrected or correctable by a full denture, provided they did not otherwise show evidence of physical impairment, either from loss of masticatory efficiency or from ill health incurred from the pathological processes which led to the loss of teeth. At the same time, individuals could be accepted with a minimum of a sufficient number of natural lower teeth in proper position and condition to support a partial denture. The denture was to be removable and easily replaced by the individual and was to be retained by means of clasps with rests or by special provision attachments to abutment teeth.

War Department Circular No. 86 permitted acceptance of individuals with a visual acuity below 20/100, but not below 20/200 in each eye, without glasses, if correctable to 20/40 in each eye. Individuals thus qualifying were to be otherwise qualified and eligible for commission and duty with noncombat services.

On 14 October 1942, War Department Circular No. 345, establishing the maximum age for candidates attending the Army Administration Officer Candidate School, was issued. Candidates for this school were to be accepted at an age no greater than 50 years and 6 months at the opening date of the class for which selected. Candidates coming from the combat arms and services were not to have attained the age of 36 on the opening date of the class for which selected.

By 28 October 1942, the shortage of officer candidate material in the combat arms and the heavy demands being made on the latter prompted the release of War Department Circular No. 358. Circular No. 358 required that no qualified enlisted man, under 35 years of age, assigned to the combat arms and services, was to be enrolled in one of the basically administrative officer candidate schools. Specifically named were the Army Administration Officer Candidate School, the Quartermaster Officer Candidate School, the Medical Ad-

ministrative Officer Candidate School, and the Finance Officer Candidate School.

When AR 625-5 was issued in November 1942, the standards for vision were modified to the extent that the minimum visual acuity of 20/200 in each eye, without glasses, had to be correctable to 20/20 in one eye, and to 20/40 in the other. This was applicable only to the noncombat services. Candidates failing to meet these requirements for general military service under the provisions of MR (Mobilization Regulations) 1-9, "Standards of Physical Examination During Mobilization," were still eligible for officer candidate schools of the noncombat services.

War Department Circular No. 64 was issued in March 1943 after it was revealed that certain enlisted men were being denied the opportunity to attend officer candidate schools because of physical defects present at the time of their enlistment or induction. These defects were not sufficient to disqualify the individual for general military service as an enlisted man. The Adjutant General pointed out in this circular that any enlisted man qualified for retention on active service was to be considered physically qualified to attend officer candidate schools of the noncombat services.

RESERVE OFFICERS' TRAINING CORPS

Applicants for membership in ROTC (Reserve Officers' Training Corps) were required to be "physically fit to perform military duty, or will be so upon arrival at military age." Physical standards were to be those prescribed for a commission in the Officers' Reserve Corps (appendix C, p. 209). Deviations in height and weight were permitted from the standard height and weight table for students from 14 to 21 years of age. Existing physical disability, or defects likely to exist at the time of graduation from the Reserve Officers' Training Corps and which might not be waived for appointment in the Officers' Reserve Corps, could not be waived for enrollment or continuance in a senior division of the Reserve Officers' Training Corps.

Before the war, students graduating from the Reserve Officers' Training Corps were enrolled in the Officers' Reserve Corps. At the outbreak of war, only senior division ROTC students were permitted to continue under the program and, upon graduation, were enlisted in the Army, given basic training, and sent to officer candidate school. Special provisions were made with respect to physical qualification before commissioning former ROTC students graduating from officer candidate schools.²⁰

Qualification of students for the Reserve Officers' Training Corps had been based on the higher physical standards contained in AR 40-105. Physical standards for entrance into officer candidate schools were but very little higher than those for enlisted service. The War Department wanted to keep the higher quali-

²⁰ Memorandum No. W145-2-43, Maj. Gen. J. A. Ulio, The Adjutant General, War Department, 13 Feb. 1943, subject: Appointment of ROTC Graduates.

fied personnel separate, so that they could be retained in the Officers' Reserve Corps after the war without depriving the Army of the services of others who could qualify under the lower standards applicable. Consequently, the War Department prescribed that advanced course ROTC students, physically qualified for appointment in the Officers' Reserve Corps under AR 40-105, were to be considered physically qualified for attendance at any officer candidate school. Upon graduation, they were to be considered physically qualified for a commission in the Officers' Reserve Corps rather than in the Army of the United States in which officer candidate school graduates were normally commissioned. Senior ROTC students not qualified under AR 40-105 could still attend officer candidate schools if they qualified for general service under AR 625-5, but on graduation, they were to be commissioned in the Army of the United States. Senior ROTC students, not qualifying under these criteria for the arms, could attend officer candidate schools of the services under lower criteria. Students not meeting any of these standards could qualify for officer candidate schools of the services if they met the physical standards prescribed in MR 1-9 for general or limited service applicable to inductees.

Students not physically qualified under any of the criteria mentioned were not to be ordered to officer candidate schools. Instead, their ROTC contracts were to be terminated, and if they had been previously enrolled in the Enlisted Reserve Corps, or inducted into the service, they were to be discharged. Regardless of the level of physical condition under which a ROTC student qualified, a final-type physical examination was necessary before he departed for officer candidate school. From this point on, requirements and procedures applicable to ROTC students were the same as those for other officer candidates.

FEMALE COMPONENTS

When the United States entered World War II, the only women in the Army were nurses. During the war, components were created to include dietitians, physical therapists, physicians, surgeons, and members of the Women's Army Auxiliary Corps (later Women's Army Corps). Nurses held positions of relative commissioned rank which later was changed to full commissioned status in July 1944. Before the war, physical therapy aides and dietitians on duty in Army hospitals were civil service appointees. During the war, such personnel were commissioned on the same basis as nurses, and by the end of the war, the personnel involved was substantial. In the Women's Army Corps, both officer and enlisted personnel were involved. Physical standards for all women were essentially those prescribed for Army nurses.

Army Nurse Corps

Standards in effect for the examination of Army nurses and applicants for the Army Nurse Corps in 1940 were those set forth in AR 40-100. With the

large influx of women into the Army, however, more definitive physical standards for accurately evaluating the physical condition of females were required. In September 1943, an entire section [Change No. 5] was added to the basic regulation, embracing causes for rejection, pelvic examination, special qualifications for Women's Army Corps, history of menses, and limited service. In addition to causes for rejection covered in AR's 40-105 and 40-100, common to both men and women, 17 causes for rejection peculiar to women were added to the standards. In technical terminology, disqualifying conditions thus included were pregnancy; marked endocervicitis; tuberculosis of pelvic organs or breasts (a history of successful excision of the affected organ 3 years or more before date of application was not to be considered disqualifying); Bartholinitis; vaginitis, acute or chronic; salpingitis, acute or chronic; oophoritis, acute or chronic; new growths of the external genitalia; cervical polyps; ovarian cysts; new growths of the uterus (this was with the exception of fibroid, single subserous, asymptomatic, less than 3 cm. in diameter, with no general enlargement of the uterus); congenital abnormalities or lacerations of the birth canal, which, in the opinion of the examining physician, were of such a degree as to cause incapacity; incapacitating menstrual disorders; menopausal syndrome manifested by more than mild constitutional or mental symptoms; new growths of the breasts; acute mastitis; and marked chronic cystic mastitis (appendixes C and D).

Limited service was authorized for Army nurses, hospital dietitians, and Medical Department physical therapy aides in the September 1943 change. Previously, AR 40-100 of 16 November 1942, with respect to females, had included reference only to Army nurses.

Both the 1940 and the 1942 versions of AR 40-100 required that physical fitness of Army nurses and applicants for the Army Nurse Corps be determined by an examining board of not less than two medical officers. Individuals were to be questioned carefully about their medical history and state of health at the time of examination. Examinations were to be thorough in order to eliminate those not capable of performing duties required of an Army nurse. An X-ray examination of the chest was to be made, and full advantage was to be taken of all other available diagnostic aids in detecting physical impairment.

Women's Army Auxiliary Corps and Women's Army Corps

The WAAC (Women's Army Auxiliary Corps) and the WAC (Women's Army Corps) were created—the former for service *with*, the latter for service *in*, the Army of the United States. Establishment of the Women's Army Auxiliary Corps was authorized by an act of Congress approved 14 May 1942.²¹

²¹(1) Women's Army Auxiliary Corps Regulations (Tentative), War Department, Washington: U.S. Government Printing Office, 1942. (2) Women's Army Auxiliary Corps Regulations, War Department, 1943. (3) For a more detailed discussion see Treadwell, Mattie E.: *The Women's Army Corps, United States Army in World War II. Special Studies*. Washington: U.S. Government Printing Office, 1954.

The purpose was to make available to the national defense, when needed, the knowledge, skill, and special training of the women of the Nation. The total strength of the corps was not to exceed 150,000. The Women's Army Auxiliary Corps was not organized as part of the Army, but in serving with it, was to be utilized for noncombat service.

Enrollment in the Women's Army Auxiliary Corps was to be voluntary. Enrollees were to be of excellent character, in good physical health, and between 21 and 45 years of age. Medical care was to conform as near as practicable to that given to personnel of the Army, including the use of Army facilities and medical personnel. During any "line-of-duty" injury, illness, incapacity, or death, members of the Women's Army Auxiliary Corps were entitled to all benefits prescribed for civilian employees of the United States, which affairs were normally administered by the U.S. Employees' Compensation Commission. In the absence of specific regulations to the contrary, the Women's Army Auxiliary Corps was to be administered in accordance with Army regulations.

Tentative WAAC regulations of 28 May 1942 required that enrollees be given a physical examination at Army recruiting stations similar to that given to personnel of the Army (fig. 12). Chest X-rays and serological tests for syphilis were to be given as a routine part of the examination. Physical standards for enrolled members (counterparts of enlisted men in the Army) were to be those given in MR 1-9 for general service in the Army, with due consideration of the difference in sex and height and weight.

In addition to the conditions listed in MR 1-9 as causes for rejection, other causes for rejections included in the tentative WAAC regulations of May 1942 were pregnancy; infections or new growth involving female organs (the breasts included); congenital abnormalities or lacerations of the birth canal, which, in the opinion of the examining physician, were of sufficient degree to have caused incapacity; incapacitating menstrual disorders (amenorrhea per se was not considered to be a cause for rejection when secondary to menopause, or surgery which was performed for a benign condition); and other gynecologic conditions which, in the opinion of the examining physician, were disqualifying for admission into the Women's Army Auxiliary Corps.

The Women's Army Corps, established on 1 July 1943 as a component of the Army of the United States, absorbed and superseded the Women's Army Auxiliary Corps. Strength of the corps was to be as directed by the President. It was to exist for the duration of the war plus 6 months. Women under 20 or over 50 years of age were ineligible for enlistment or reenlistment. Enlisted and officer personnel of the Women's Army Corps assumed a status identical with that of like personnel in other components of the Army.

Basic regulations governing the new corps were amplified in War Department Circular No. 289, dated 9 November 1943. Physical standards, as before, were to be those set forth in AR 40-100 for nurses. In addition to the causes for rejection listed in that regulation, venereal disease was added as a further disqualification for enlistment in the Women's Army Corps. At the same time,



FIGURE 12.—A Women's Army Auxiliary Corps enrollee being inoculated for protection against fever and disease in future assignment. Others await turn.

deviations from normal physical standards were permitted. It was clearly indicated, however, that such deviations were not to interfere with, nor prevent, satisfactory performance of duties. Moreover, they were not to be of a nature likely to be aggravated by the type of military service contemplated.

In War Department Circular No. 132, dated 7 April 1944, a further modification authorized limited service for WAC officers on the same basis as that previously established for female components of the Medical Department. Limited service was not authorized for enlisted members of the Women's Army Corps, but some standards for general service were quite low. For example, dental requirements for enlisted women were to be the same as those contained in MR 1-9, dated 15 October 1942. The minimum standards, as a result, permitted acceptance in the Women's Army Corps of those who were completely without natural teeth, provided the condition was, or could be, corrected with artificial dentures.

Ultimately, examinations given for commission or enlistment were to be of the final type. Before 1 March 1943, many enrollees in the Women's Army Auxiliary Corps had not received complete final-type physical examinations.

The requirement for a thorough examination was particularly desirable in that when this group was incorporated into the Army members became entitled to compensation and retirement benefits if subsequently found disqualified for service in line of duty.

The neuropsychiatric examination of WAC applicants at recruiting stations was spelled out by TB MED (War Department Technical Bulletin) 100 issued in October 1944. The enlistment procedure usually involved an interview by the recruiting officer following completion of the WAC classification test. At this point, recruiting officers might disqualify an applicant as being a delinquent, promiscuous, or a troublemaker. Following the interview, applicants were tested by means of the Cornell Selectee Index.²² The results of the latter and the recruiting officer's evaluation were then furnished the psychiatrist. Whenever possible, the applicant's name was to have been cleared with State institutions for mental disease. Doubtful cases, for whatever reason, were to be investigated.

Pregnancy and Maternity Care

The basic policy on pregnancy was the same as that for nurses and all other women serving in the Army. Members of the corps becoming pregnant were to be relieved or discharged from the service. Pregnancy was added to AR 40-100 as a cause for rejection. Tentative WAAC regulations of 28 May 1942 required that married members, certified as pregnant by medical authority, were to be honorably discharged without prejudice. Unmarried members, similarly certified, were to be given a "summary discharge" without delay. WAAC Circular No. 3, issued on 1 February 1943, provided that an enrolled member becoming pregnant was to be discharged without the usual board proceedings. The "summary discharge" was to be used to separate a member for convenience of the Government when retention in the corps would not be in the best interests of the service. WAAC regulations of June 1943 required that pregnancy be entered in daily sick reports as "not in line of duty." However, the condition was not to be construed as due to the member's own misconduct because this would have resulted in forfeiture of pay and service time. Under the provisions of these regulations, WAAC members becoming pregnant, likewise, were to be honorably discharged. The same provisions applicable to discharge of enrolled women were to apply to WAAC officers. When the Women's Army Corps was created on 1 July 1943, subsequent regulations for the new corps incorporated identical provisions with regard to pregnancy.

The basic policy on pregnancy for all Army women was amplified in November 1943, when it was directed that—

1. Only honorable discharges were to be granted for pregnancy, without distinction as to marital status.

²² A psychiatric screening test issued as Cornell Selectee Index Form No. 4 by the Technical Section, Classification and Replacement Branch of the War Department Adjutant General's Office.

2. Pregnancy was to be considered as occasioned not in line of duty, but was not to be considered due to the member's misconduct.

3. Pertinent Army regulations were to be reworded so as to omit any reference to marital status in connection with discharge or hospitalization for pregnancy.²³

Many factors influenced this decision to give honorable discharges to women for pregnancy regardless of marital status. Foremost among them was the lack of any legal basis for other than honorable discharge. There were also, however, administrative difficulties in making a just decision, in many cases, and the harm accruing to the woman on her return to civil life with a misconduct discharge and a record of illegitimate pregnancy. Moreover, members of the Army Nurse Corps, when relieved under other than honorable conditions, were to be removed from the list of registered nurses, thus depriving the individual from earning a living in her chosen profession. Similar disadvantages would have accrued to women of other components.

Policy with respect to disposition of female officers and warrant officers of the Army of the United States who became pregnant was restated and further clarified in War Department Circular No. 404, dated 14 October 1944. Normally, an officer or warrant officer was to be given an honorable discharge when pregnancy was involved. If other conditions were also involved, individuals were to be retained for hospitalization and treatment, even though they were pregnant. Illegal abortions, whether complete or incomplete, were to be regarded both as misconduct and as incurred "not in line of duty."

The basic administrative policy with respect to separation from the service was that pregnant nurses, hospital dietitians, physical therapists, and women physicians were to be relieved from active duty. Other women officers and warrant officers who became pregnant were to be discharged.

ARMY SPECIALIZED TRAINING PROGRAM

In December 1942, a program was established to provide for the scholastic training of specially selected Army enlisted men in certain civilian colleges and universities. After 1 July 1943, only those trainees assigned to medical, dental, and veterinary schools were to be admitted to the program without having completed the prescribed course of basic military training. Moreover, the individual was to be selected on the basis of his prior academic record, and, as appropriate, the record achieved during basic training. Trainees admitted to any phase of the Army Specialized Training Program were to have the same physical qualifications as those required for commission in the Army of the United States (appendix C, p. 209). At least 90 percent of the personnel selected for such training were to be qualified for general military service. The remaining 10 percent

²³Memorandum for Record, Brig. Gen. Russel B. Reynolds, GSC, Director, Military Personnel Division, Adjutant General's Office, to The Adjutant General thru the Acting Chief of Staff, G-1, 3 Nov. 1943, subject: Line of Duty Status of Pregnant Nurses, Dietitians, Physiotherapy Aides and Wacs.

could be admitted to the program if physically qualified for limited service under the same standards.

ARMY SPECIALIST CORPS

The Army Specialist Corps was established in March 1942 under Executive Order No. 9078, dated 26 February 1942. The corps was to bring under control of the Secretary of War those individuals with professional, technical, scientific, administrative, and managerial skills who otherwise would not have been available to the service. This group was to include, also, those who were to perform work incidental, subordinate, or preparatory to the work required of those occupying positions calling for such skills. Still others were to perform work as artisans, normally a part of a trade or manual-skill occupation.

Members of the Army Specialist Corps were to be assigned on an Armywide basis to relieve military personnel for combat and command duties. Members of the corps were to be appointed as civilians, without the acquisition of civil service status, but were to have relative rank ranging from corporal to major general, and were to wear the comparable Army uniform. Members were to have no command function. Their duties were to be administrative supervisory only.

Appointees were required to meet the minimal physical standards established for limited service under MR 1-9. This requirement was subject to two basic provisions. The first provision specified that no individual was to be accepted who had a physical defect which, in the opinion of examining physicians, rendered the applicant unsuitable for the special work he was expected to perform. The condition, moreover, must be of a nature not likely to be aggravated during Federal employment, nor apt to become the basis of a subsequent claim against the Government. The second provision, covering exceptional cases, permitted acceptance of an individual failing to meet standards for limited service set forth in MR 1-9 with recommendation for waiver of defect. In such cases, examining physicians were to be of the opinion that physical condition would not be a limiting factor in the special work the applicant was to perform.

CONCLUSIONS

Problems of physical standards and examination in the physical evaluation of manpower were almost as diverse as the purposes for which it was needed and the sources from which it was drawn. The Officers' Reserve Corps, the officer candidate schools, the United States Military Academy, the Reserve Officers' Training Corps, and the National Guard were basic sources of male officer personnel. The National Guard was also the principal source of units which were inducted during the first 2 years of the war. At the outset of mobilization, standards were raised and examination procedures tightened, but as the need for manpower became crucial shortly after the United States entered the war, stand-

ards were lowered through the acceptance of officers for limited service and a liberal policy on waivers for defects.

Female components posed a special situation in connection with standards, examination, and pregnancy. These were amplified with the creation of the Women's Army Auxiliary Corps and the Women's Army Corps.

The Army Specialist Corps was formed to fill a gap by capturing the skills of men who would not otherwise be available to the military effort. By the time the corps was abolished late in 1942, however, standards had been so far lowered that some 85 percent of its members were able to meet the physical qualifications for service in the Army of the United States. It was after the absorption of the Army Specialist Corps in the Army of the United States that the Army Specialized Training Program, operating in civilian institutions, was inaugurated to provide a further source of potential officer material.

CHAPTER IV

Personnel Classification and Retention Policies

When large numbers of men were no longer available from outside the Armed Forces, the Army had to turn within itself to retain and make better use of the men on hand. Personnel managers in industry and government had long recognized the monetary, material, and intrinsic waste, or loss, resulting from high turnover rates. It was not simply a matter of replacing one individual with another and having the latter pick up where the other left off. There were losses of skills, experience, time, and separation costs, to mention a few. With the drastic depletion of men capable of performing service in the Armed Forces during World War II, it became even more important to keep and utilize the men already serving (fig. 13). Success in doing this depended upon developing workable policies on classification, reclassification, limited service, oversea assignment, and redeployment.¹

CLASSIFICATION PROBLEMS

Procedures for the initial classification of those entering the Army as enlisted men were issued shortly before passage of the Selective Training and Service Act of 1940, and in anticipation of it. This classification was a process by which pertinent data concerning the man's education, intelligence, aptitudes, previous military experience, civilian work history, interests, hobbies, and other qualifications were obtained and recorded. The information was to be used as a basis for an assignment in which a man would be of greatest value to the service by the most effective use of the skills he possessed.²

There was very little in the regulations regarding the physical condition of the man, except to state that men physically qualified only for limited service would be assigned to noncombatant duties. The high physical standards applicable during the early mobilization period created a situation wherein many of the most physically qualified men were in service or support assignments rather than in combat units of the Army Ground Forces, where the higher physical capacities were needed. As the war progressed and physical standards

¹ For more information on personnel procedures and problems, especially as they applied in the Medical Department, see Medical Department, United States Army. *Personnel in World War II*. Washington: U.S. Government Printing Office, 1963.

² Army Regulations No. 615-25, 3 Sept. 1940.

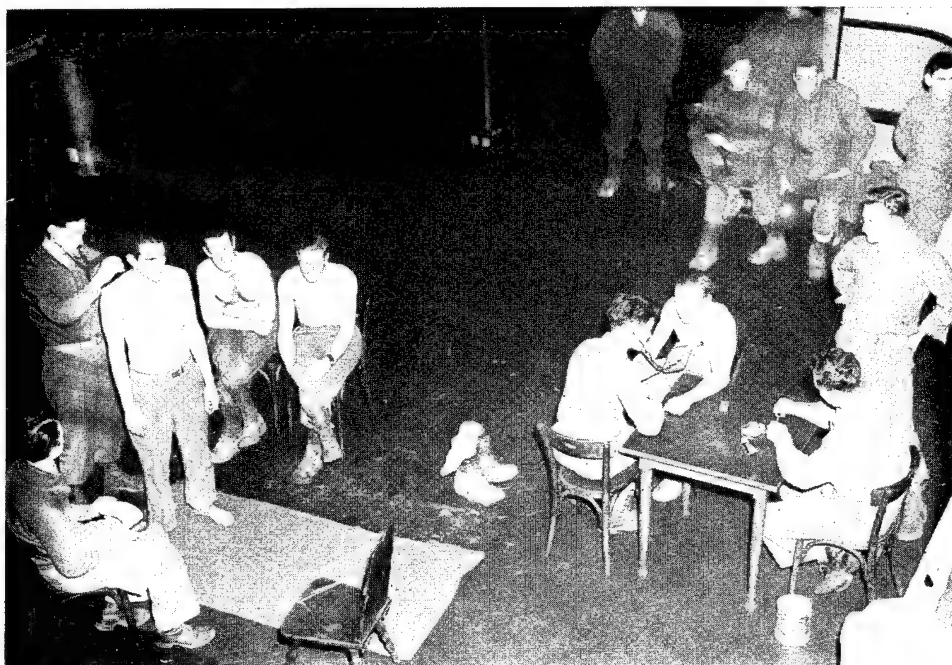


FIGURE 13.—Individuals in service troops undergoing physical examination for combat duty at the 619th Clearing Station, Saverne, France.

were lowered, it became increasingly difficult to find men just coming into the Army who had the physical capacity to serve in combat units.³

Both the Army and the Navy competed for the best men at induction stations. Moreover, within the Army, the Army Ground Forces, the Army Air Forces, and the Services of Supply (later Army Service Forces) each competed for the best of the manpower available. Particularly acute was the rivalry between the Army Ground Forces and the Army Air Forces, both of which had combat missions.

As part of its promise to those volunteering for Army service at induction stations early in the war, the Army offered a choice of assignments. Most of these "volunteers" chose the Army Air Forces. By establishing higher enlistment standards than those required for duty with other major elements of the Army, the Army Air Forces were able to obtain much of the cream of the manpower brought into the Army (appendix D, p. 249). In addition, all men within

³(1) Army Ground Forces Memorandum, Replacement Depot No. 1, for Commanding General, Army Ground Forces, 9 Nov. 1943, subject: Characteristics of Enlisted Replacements by Arms. (2) Tab D, Army Ground Forces Memorandum (S) for G-1, War Department, 21 Dec. 1943, subject: Utilization of Available Manpower Based Upon Physical Capacity. [Both documents cited here were used by Mrs. Hellman in her work on an earlier draft of this volume, but neither is now available in the official files.—C. M. W.]

the Army were eligible to apply for aviation cadet training. Men failing to complete aviation cadet training successfully were not returned to the organization from which they had been drawn but were retained on duty with the Army Air Forces in some other capacity.

The distribution of men between the Army Ground Forces and the Army Service Forces was not ideal. The former needed men in good physical condition, while the latter needed men with previously acquired skills and occupational training. Until 1944, there was no system for relating skills and capabilities with physical capacity beyond the use of physical standards for induction. The classification of men according to acquired skills tended to emphasize this aspect in the process of making assignments. Consequently, the more highly skilled were assigned to the Army Service Forces, while the remainder went to the Army Ground Forces. As a result, many of the more highly skilled, who were also better physically qualified, were given noncombatant assignments, much to the disadvantage of the effort to obtain sufficient qualified personnel for combat units. Added to these difficulties was that all men were eligible to apply for the Army Specialized Training Program, as in aviation cadet training. Personnel drawn from the Army Ground Forces in this manner not only comprised more than a proportionate share of the total but also represented an even higher percentage of its better qualified men than was the case in the other major Army elements.⁴

Although the need for combat troops was rising steadily, approximately 600,000 able-bodied men were in overhead organizations in the Zone of Interior at the end of 1943. Early in January 1944, the War Department directed that these men be reassigned in the course of the next 6 months for oversea duty. Their replacements were to come primarily from civilians, Wac's, and limited service men. The Army Ground Forces did reassign 42,000 of its own troops included in the total, but little progress was made by either the Army Air Forces with 400,000, or the Army Service Forces with 158,000. Only after direct orders issued on 30 October 1944 to transfer men qualified for oversea duty to the Army Ground Forces were any substantial numbers shifted between the two major commands. Between that date and the end of the war, the Army Air Forces supplied 60,000 men for ground combat duty, the Army Service Forces supplied 28,000, and other Zone of Interior sources supplied 12,500. The Army Ground Forces also received 73,000 men from the Army Specialized Training Program.⁵

⁴Memorandum, Capt. W. F. Lentz, Chief, Statistics and Reports Executive Office, for Director, Army Specialized Training Program, 21 July 1943, subject: Number of Men in ASTP Institutions Supplied by Each of the Three Forces.

⁵(1) Palmer, Robert A., Wiley, Bell I., Keast, William R.: *The Procurement and Training of Ground Combat Troops. United States Army in World War II. The Army Ground Forces.* Washington: U.S. Government Printing Office, 1948, pp. 80-82. (2) Minutes, War Department General Council, 27 Mar. 1944. (3) Memorandum, Maj. Gen. Ray E. Porter, Assistant Chief of Staff, G-3, for the Commanding General, Army Ground Forces, 29 Mar. 1944, subject: Allotment of Personnel Released by Army Air Forces.

The Adoption of "PULHES"

Early in 1944, the War Department recognized the need for some means of classifying the physical capacities of men, as had been done in occupational skills and intelligence levels, and then using these classifications to make an equitable and realistic distribution of combat-fit personnel. After considering several proposals, the Physical Profile Serial System, or "PULHES," was adopted.⁶

The "PULHES" system was an adaptation of the Canadian "PULHEMS" system. It differed from the Canadian system in that the latter embraced a closer relationship between physical capacity and specific military duties to be performed. It must be emphasized that the Physical Profile Serial System was applied to those men who already had been physically evaluated in induction stations, according to the physical standards of MR (Mobilization Regulations) 1-9, "Standards of Physical Examination During Mobilization," and found acceptable for military service. It was to serve the purpose of determining, after entrance into the service, the kind of military duty each man was capable of performing in keeping with his skills and his physical capacity.

The "PULHES" system was based primarily upon the functions of various organs, systems, and integral parts of the body. Since an analysis of the individual's physical and mental status played an important role in his future assignment and welfare, a clear and accurate description of his physical and mental condition was essential.

In developing the system, the human functions were divided into six categories, which were designated by the letters P-U-L-H-E-S. The factors to be considered, the parts affected, and the bodily function involved in each of these categories are shown in table 1. The six categories created contained four grades. Grades 1 and 2 represented a level of physical fitness equivalent to the induction classification of "general service." Grade 3 indicated the presence of physical defects involving an impairment of function, which was a qualification equivalent to "limited service." Grade 4 represented the presence of defects which were below the minimal standards for induction.

In a complete profile, an individual received a grade from 1 to 4 in each of the six body parts or functions; that is, "P," physical capacity or stamina; "U," upper extremities; "L," lower extremities; "H," hearing (including ear defects); "E," eyes; and "S," neuropsychiatric. Thus, a profile was basically a combination of six numerals from 1 to 4, representing degrees of fitness and associated with the letters P-U-L-H-E-S. A profile of P-1, U-1, L-1, H-1, E-1, S-1, for example, indicated the highest level of physical proficiency.

⁶ Palmer, Robert R., Wiley, Bell L., and Keast, William R.: *The Procurement and Training of Ground Combat Troops. United States Army in World War II. The Army Ground Forces*. Washington: U.S. Government Printing Office, 1948, pp. 67-76.

TABLE 1.—*Physical profile serial*

Degree of fitness	Physical capacity					
	P (physical capacity or stamina) ^{1,3}	U (upper extremities) ^{2,3}	L (lower extremities) ^{2,4}	H (hearing; ears) ⁵	E (vision; eyes) ⁶	S (neuro-psychiatry) ⁷
Grade 1...	Able to perform maximum sustained effort over extremely long periods.	Bones, joints, and muscles normal. Should be able to do hand to hand fighting.	Bones, muscles and joints normal. Must be capable of performing long marches and continuous standing over long periods. No defects which disqualify for running, climbing, and digging.	Hearing 15/15 in one ear and 8/15 or better in other ear.	Meets general service standards of MR 1-9.	Emotionally stable, and those with transient, mild psychoneurotic manifestations incident to imminent departure for overseas assignment.
Grade 2...	Able to perform sustained effort over long periods.	Slightly limited mobility of joints, muscular weakness, or other musculoskeletal defects which do not prevent hand to hand fighting, and do not disqualify for prolonged effort.	Slightly limited mobility of joints, muscular weakness, or other musculoskeletal defects which do not prevent moderate marching, climbing, running, digging, or prolonged effort.	Minimum hearing 8/15 bilateral or 15/15 in one ear and less than 8/15 in other ear.	No intermediate grade, use 1.	Intermediate grade, use 1.
Grade 3...	Able to perform sustained effort for moderate periods.	Defects causing moderate interference with function yet capable of sustained effort for short periods.	Defects causing moderate interference with function but capable of sustained effort for short periods.	No intermediate grade, use 2.	Below 1 but meets minimum standards for induction under MR 1-9.	Mild psychoneurosis other than 1 above or transient psychoneurosis of a moderate degree.

See footnotes at end of table.

TABLE 1.—*Physical profile serial*—Continued

Degree of fitness	Physical capacity					
	P (physical capacity or stamina) ^{1,3}	U (upper extremities) ^{2,3}	L (lower extremities) ^{2,4}	H (hearing; ears) ⁵	E (vision; eyes) ⁶	S (neuro psychiatry) ⁷
Grade 4...	Below minimum standards for induction. Disqualifying except for those men who have been trained in and have performed adequately in current assignment.	Below minimum standards for induction. Disqualifying except for those men who have performed adequately in current assignment.	Below minimum standards for induction. Disqualifying except for those men who have performed adequately in current assignment.	Below minimum standards for induction. Disqualifying except for those men who have performed adequately in current assignment.	Below minimum standards for induction. Disqualifying except for those men who have performed adequately in current assignment.	Below minimum standards for induction. Disqualifying except for those men who have performed adequately in current assignment.

¹ Factors to be considered: organic defects, age, build, strength, stamina, height, weight, agility, energy, muscular coordination, and similar factors.

² Initial profile will be based on anticipated performance at completion of training; verified profile will be based upon observation of actual performance of duty, and medical inspection.

³ Factors to be considered: strength, range of motion and general efficiency of upper arm, shoulder girdle and back, including cervical thoracic and lumbar vertebrae.

⁴ Factors to be considered: strength, range of movement and efficiency of feet, legs, pelvic girdle, and lower back.

⁵ Factors to be considered: auditory acuity, and organic defects of the ears.

⁶ Factors to be considered: visual acuity, and organic defects of the eyes and lids.

⁷ Factors to be considered: emotional stability, personality, and neuropsychiatric history.

In assigning the numerical grades, it was emphasized that neither anatomical nor pathological defects were the sole basis of classification. The defects as described in the physical standards of MR 1-9 were to be given consideration in accomplishing the profile. The factors of function and prognosis, regarding the possibility of aggravation in the light of the defect found, however, were of primary importance in grading.

To assist examining physicians in making their analysis, a brief guide to the defects and the weight of grading applicable in each of the categories was prepared (table 1). It was pointed out that this table was not complete, and examining physicians were cautioned that because certain defects were not listed it was not to be assumed that they should not be considered.

The important point made was that the basic principle of the physical profile serial was to provide an index to the individual's functional capacity. The function of the particular organ or system of the body, therefore, had to be carefully evaluated in determining the proper grading, rather than the extent of the defect per se. Meanwhile, other elements of the examination, such as X-ray films, electrocardiograms, and other specific tests that gave concrete results, were to be used as aids in making the evaluation.

To facilitate assignment of individuals at reception centers and replacement training centers after they were given a physical profile serial, the profiles were grouped into three broad categories:

<i>Category</i>	<i>Profile serial limit and level of duty</i>
A-----	Men whose profile was 211211, or better. (Fit for duty in combat zones and for any strenuous work.)
B-----	Men whose profile was between 32231 and 211211. (Fit for close combat support duties.)
C-----	Men whose profile was between 333231 and 32231. (Fit for duty in lines of communications, or bases overseas, or in the continental United States.)

Men whose profiles came within the range of the broad categories A and B were regarded as qualified for "general service" as defined in MR 1-9, while those whose profiles qualified for category C were considered qualified for "limited service." The concept of these categories, with respect to the range of profiles, changed from time to time throughout the war, but the plan remained essentially the same. In the "S" factor, such profiles were applicable only to the evaluation of men for retention in the service, and not for induction.

To make the profile serial more informative, a code letter, or a combination of code letters, was used as suffixes where applicable. Code letters used and their meaning were, as follows:

- X—Indicates the individual had oversea service outside the continental United States, or in Alaska, since 7 December 1941, regardless of duration, or that, although assigned in the United States, normal duties involved travel or duty outside the United States, and cumulative time so spent has exceeded 6 months since 7 December 1941.
- R—Indicates the individual has a remediable physical defect which does not prevent his being assigned to oversea duty, but which, if corrected, would improve his general health and welfare. Correction of the defect may or may not result in a change of the profile. It is not used in cases where the remediable defect prevents the individual from going overseas.
- T—Indicates that the individual has a remediable defect which under current instructions would temporarily prohibit his shipment overseas. Such defects must be of a nature that when successfully corrected the individual will be physically qualified for oversea duty, for example, an individual with a hernia but with no other defects. An "R" suffix is not to be used in this type of case.
- D—Indicates the individual has a defect which under current instructions is permanently disqualifying for oversea service.
- O—Used only in the Army Air Forces, and indicates the individual is physically qualified for aircrew, combat-type aircraft.
- N—Used only by the Army Air Forces, and indicates physical qualification for aircrew, noncombat-type aircraft.

Thus, an inductee with a physical profile of 333231 D was considered fit for limited service, but was permanently disqualified for oversea duty.

The initial profile serial, ordinarily, was prepared by a medical officer at the reception center after the individual entered the service. Verification or revision of the profile serial, as necessary, was made at, or near, the completion of basic training. Later, revisions could have been made at any time by a profile classification board. Such boards, normally, were to consist of the soldier's unit commander, a medical officer, and a classification officer. In any event, a 3-month interval was required between classifications. An exception to this rule was illness or injury with marked physical deterioration which made an earlier review necessary. Meanwhile, when the profiling system was initiated, only inductees were involved. Profiling of men already in the service did not take place until approximately 1 year after its adoption by the Army.

Profiling of Men in the Service

On 6 November 1944, War Department Circular No. 431 was issued, of which section VI required that all Army enlisted men in the continental United States be profiled by 1 February 1945. By this time, use of the physical profile serial on inductees had progressed so rapidly that it was deemed essential to profile all men in the service so as to expedite classification and discharge objectives. To achieve this objective by the deadline date, all unit commanders concerned were directed to make immediate arrangements to complete the profiling of all men under their control.

Previously, a physical profile supplement to MR 1-9 of 22 May 1944, as amended by Change No. 1, 19 August 1944, subject: "Physical Profile Serial," had been issued. Commanders were directed to use this supplement as a guide. Profiling was to be accomplished either by medical officers assigned to the organization or by those designated to hold sick call for it. To expedite completion of the profiling in the time allotted, unit commanders were to furnish medical officers certain information on each man to be profiled. This information constituted the unit commander's evaluation of the individual and was to include factors such as physical stamina, emotional stability, adjustment in the organization, general health, frequency of appearance on sick call, and a report of any known physical defects.

The men involved were then to be brought before the medical officer who was to perform a complete physical examination (rather than a simple physical inspection) including an estimate of psychiatric stability. Wherever possible, the examination was to be accomplished by a team of qualified specialists. Routine chest X-rays, serological tests, and urinalyses were not to be included, except where special circumstances indicated.

Obviously, there were certain circumstances under which delay for profiling would have had adverse effects on Army operations. Therefore, certain conditions were identified under which profiling would not be necessary. These were specified as (1) enlisted men at or under orders to proceed to overseas replacement depots or ports of embarkation as individual replacements; (2)

enlisted men in units under movement orders to depart for overseas before 1 January 1945; and (3) aircrew combat personnel, including those enlisted men in training or awaiting training leading to assignment as aircrew combat personnel.

At or near the completion of basic training, each enlisted man was given a physical inspection and his profile verified or revised as the findings warranted. A complete physical examination was not given for this purpose, but special examinations could be ordered by the responsible medical officer if the need for one was indicated.

In addition to the profiling already mentioned, a unit commander could request profiling or reprofiling of a man. In these instances, as in all profiling actions, action was taken by a profile classification board consisting of a line officer, a medical officer, and a classification officer. In mental cases, the classification officer was replaced by a psychiatrist.

The initial profile serial, expressed as a numerical grading and suffix only, was recorded, dated, and initialed in the individual's W.D., A.G.O. Form No. 20, "Soldier's Qualification Card." This was done when the profile was established initially and at any other time that it may have been changed.

Use of Profiles in Assigning Men

Each month, the Assistant Chief of Staff, G-1 (personnel), established and published an approved list of all specialties critically needed in the Army. Enlisted men, processed through reception centers, who possessed the needed skills were assigned in accordance with the instructions accompanying the list and those issued in specific instances which covered the assignment of men with certain skills without regard to profile.

With the exception of critically needed specialties, all enlisted men were assigned, according to their profiles, to one of the three major commands—the Army Ground Forces, the Army Air Forces, or the Army Service Forces. Quotas for this purpose were established and published from time to time. If at any time there was an excess of men with profile A after all quotas had been filled, the excess was automatically allotted to the Army Ground Forces. In such instances, the number involved was deducted from the Army Ground Forces' quota of men with profile B. When there was an excess of men with profile B, they were prorated among the three major commands. This was done on the basis of a fixed percentage of men in this category allotted to each command. Changes in the quotas were made by the Assistant Chief of Staff, G-1, on the basis of his approval of recommendations submitted by each of the major commands. The distribution quotas to the three major commands for May 1944, for example, expressed in percentages of the totals available, are shown in table 2.⁷

⁷ War Department Memorandum No. W40-44, dated 18 May 1944.

The men available for assignment seldom permitted these allocations by precise percentages established for the three profile categories. It was believed, however, that if the prescribed percentage distribution was adhered to as closely as possible, in the long run the desired results would be brought about.

TABLE 2.—*Distribution quotas, expressed in percentages of totals available, to the three major commands, May 1944*

Command	Profile A	Profile B	Profile C
	Percent	Percent	Percent
Army Air Forces.....	10	50	40
Army Service Forces.....	40	40	20
Army Ground Forces.....	80	10	10

It was the responsibility of reception centers to fill the quotas established in accordance with classification and assignment procedures. Every effort was made to assign the best qualified men to the Army Ground Forces. Assignments to units and arms of the Army Ground Forces were made at reception centers based on apportionment information furnished by the Commanding General of the Army Ground Forces. If, for example, the quota for the latter at a reception center on a given day was a total of 100, then the Army Ground Forces representatives attached to reception centers decided which of this number were to be assigned to the Infantry, Field Artillery, and so forth. Normally, the best physically qualified men were assigned to the Infantry Replacement Training Centers and units. Army Ground Forces representatives at reception centers had no part in the selection of men apportioned to them but only indicated assignments within the command after apportionment had been made. Interchange of personnel between the three major commands was to be made only upon approval of the War Department.

Actual placement of a man in a job or duty was the responsibility of the commanding general of each of the major commands. This was done on the basis of the man's general ability and physical fitness. Since minimum primary profiles were established for arms or services within each of the three major commands, it was incumbent on the commanding general to use the information from the profile serial in effecting assignment and reassignment within his command. Evaluation of profiles was made at the end of the 6 weeks' basic-training period. Based on the results, assignments then were made within the major commands.

Experience With the Physical Profile Serial System

Although the Physical Profile Serial System was not inaugurated until February 1944, it met with some success. In June 1944, when the invasion of

the European Continent was launched from England, over half of the divisions in the U.S. Army were overseas, while most of the remainder were preparing for oversea movement. Profiling was not required for individuals on order for shipment overseas. At the time the system went into effect, it must be evaluated as effective to the extent that it permitted the proper distribution of the newly inducted men who were the most physically fit. In addition, it caused the equitable reassignment of those more physically capable men who earlier had been assigned to service-type units and installations, instead of to combat units.

An examination of the system revealed that, in application, the categories A, B, and C were too broad and not sufficiently discrete to be significant. For example, an individual in category A or C could not perform every job within his group. Moreover, there was no accurate means of measuring the degree of any factor or qualification called for by the job, or possessed by the individual, and relating these with physical capacity. The system, therefore, lacked precision in that it succeeded only in suggesting broad areas of employment in which an individual might be expected to perform successfully on the basis of physical capacity. In actual practice, unit commanders were able to influence the profile ratings made by medical officers, depending on whether or not they wished to retain in their units any individual under consideration.⁸

Confusion arose concerning the use of the "T" suffix indicating temporary deferment of a man from oversea assignment until a defect was corrected. Late in 1944, it became evident that medical officers at all hospitals appeared to be using it as a temporary classification because of uncertainties of diagnosis. They were doing so as a stopgap, when they had no authority under existing instructions to limit service to the continental United States or to take discharge action, but at the same time were reluctant to put the man in a profile category which would qualify him for oversea duty. This seemed to be especially true in infantrymen with defects not readily diagnosed. In some of these cases, many medical officers were under the impression that if they certified a man as being qualified for oversea duty, he would be trained and shipped out as a rifleman. This attitude, perhaps, was justified in some cases. It no doubt arose because training in the Infantry had become so channelized that consideration was not given to the possibility that a man might be qualified in a military occupational specialty in the Infantry which was less physically exacting than that of rifleman.

One value of the Physical Profile Plan was the comparison of the initial profile with that assigned at the time of discharge or separation from the service. This permitted the pinpointing of any physical defect sustained or aggravated in the line of duty.

In final analysis, introduction of the Physical Profile Plan during World War II can be viewed as an experiment successfully applied in a real situation. Although it was not in existence long enough during the war years to accom-

⁸ Cooke, Elliot Duncan: *All But Me and Thee. Psychiatry at the Foxhole Level*. Washington: Infantry Journal Press, 1946, pp. 11-38.

plish completely that for which it was designed, its evolution continued in subsequent years.

LIMITED SERVICE FOR ENLISTED MEN

By late 1942, when a large number of men in the U.S. Army were physically qualified only for limited service, it became necessary to give careful consideration to their proper assignment (ch. II). Consequently, War Department Circular No. 327, dated 27 September 1942, stated that commanders at all echelons had the obligation of making careful visualization of the physically limited man and the duty he was to perform in their organization. As a policy, it was the duty of organization commanders to retain within their units all men physically capable of filling position vacancies.

As a general rule, limited service personnel were to be given initial assignments only to noncombatant duties. It was anticipated, however, that some men would appear in combat units who did not measure up to the standards for general service, as set forth in MR 1-9. In this event, unit commanders were to give them special consideration in assignments. Moreover, if it was possible through appropriate physical training and remedial measures, an attempt was to be made to assign them for general service.

Screening Men in Combat Units

The early correction of dental defects and the fitting of glasses were routine. Greater attention, however, was to be given to the proper physical classification of individuals for the duties they were to perform. It was found that many could be fitted into combat organizations, even though they had non-correctable defects. For example, an individual with defective hearing might function well as a cook in a combat unit, or one unable to march long distances might be fully qualified as a chauffeur.

Personnel in combat units getting ready for field service underwent a constant screening process in order to insure their complete physical fitness. None, however, were recommended for transfer to noncombatant Zone of Interior organizations simply because they were physically unfit. They were retained if they could fill a vacancy in the organization, without reducing its efficiency as a fighting unit. Age was not a primary consideration. It is to be noted that uncomplicated venereal disease was not to be considered a cause for transferring those so afflicted to noncombatant units.

If, as a result of screening, a man's total capacity was judged to be below that necessary for continued service in a combat unit, he was classified for limited service and assigned to noncombatant duties. Usually, such men were capable of performing duties with units such as prisoner-of-war escort companies; permanent party personnel at posts, camps, and stations; fixed harbor defense and antiaircraft units outside the combat zones; aircraft warning

companies; special service companies; recruiting and induction stations; reception centers; port battalions; station and general hospitals, and so on, to include rear echelon detachments or installations of combat divisions, corps, or armies.

The reclassification and transfer of limited service enlisted men from field forces was accomplished through the action of a board of three medical officers. When available, one member of the board was to be a psychiatrist. Normally, hospitalization to make final determinations was not necessary except in unusual cases.

When standards for general service were lowered in 1942, 1943, and 1944, many limited service men qualified only for limited service then became qualified for general service and duty with combat units.

Problems in Assigning Limited Service Personnel to Medical Units and Installations

The degree of usefulness of limited service personnel to the Army was in direct proportion to the suitability of duties to which they were assigned. Since the physical standards varied in accordance with the need for manpower, many problems arose in the process of making optimum assignments in consideration of a man's skills and total physical capacity.

As an approach to this problem, it was the consensus of the Surgeon General's Office that as much as 50 percent of the personnel assigned to Zone of Interior medical installations could be limited service personnel.⁹ If absolutely necessary, it was believed that this could be increased to 100 percent. In numbered medical units employed in the communications zone, however, this same opinion held that only 20 percent of the strength should be made up of limited service personnel. This was based on the fact that medical units in the communications zone were furnishing cadres for combat units, and therefore only a minimum number of limited service personnel could be used.

Also, in September 1942, the Chief of the Personnel Service of the Surgeon General's Office suggested that Zone of Interior staffing of medical installations with limited service men should not exceed 50 percent of the total. He suggested also that the Medical Department should accept and absorb such personnel on the same basis as the allotments made to other branches of the Army. It was important that the Medical Department acquire personnel physically qualified for general service sufficient for the formation and training of cadres for Services of Supply units and installations, as well as for numbered Medical Department units to serve outside the continental United States. With respect to units designated for duty in combat zones, it was believed that all personnel

⁹ Memorandum, The Surgeon General, Office of The Surgeon General, to Training Division, Office of The Surgeon General; Personnel Service, Office of The Surgeon General; Supply Service, Office of The Surgeon General; and Professional Service, Office of The Surgeon General, 10 Sept. 1942, subject: Employment of Class I-B Personnel in Medical Department Units and Installations. [Mrs. Hellman used this document in connection with an earlier draft of this volume, but it has since become unavailable.—C. M. W.]

should be physically qualified for general service. The Chief of the Personnel Service of the Surgeon General's Office went on to state that it was just as important for Medical Department enlisted men to meet physical qualifications for general service as it was for line soldiers assigned to combat units. Both had to endure the same hardships and, therefore, should be on the same footing from a physical standpoint.¹⁰

On 16 October 1942, The Surgeon General pointed out that an excessive number of limited service personnel were being assigned to medical installations in service commands.¹¹ This was the result of a misinterpretation of War Department Circular No. 327 of 27 September 1942, covering the utilization of limited service enlisted personnel and their transfer from field forces. Reception centers were filling all personnel vacancies at medical installations in service commands with limited service personnel and, at the same time, assigning an additional 10 percent as overstrength. Medical units destined for theaters of operations were receiving limited service personnel on the order of 50 to 90 percent of the authorized total. The Surgeon General noted that these conditions, particularly in medical units employed in combat zones, could result in a dangerous situation with respect to the unit's training and function. In one such unit with an authorized enlisted strength of 500 men, for example, out of a shipment of 436 limited service men assigned by reception centers, there were 16 illiterates; 131 with an IQ (intelligence quotient) below 70 (the average IQ for the 436 was 82); 3 with hearing so defective as to require the use of a hearing aid; many with partially immobile (ankylosed) and chronic arthritic joints; and many with teeth missing. Many of these personnel were required to be qualified in highly technical procedures, such as X-ray, laboratory, operating room, pharmacy, and so forth. This could not be entrusted to mentally irresponsible persons without accepting an unwarranted and indefensible hazard for the patient. Obviously, the training of such units presented an almost superhuman task. This training problem would have been intensified on the receipt of oversea movement orders, when many would have been found physically unfit for duty overseas and replacements would have required training.

The main difficulty was seen as the possibility of dangerous misinterpretation of the term "noncombatant" as used in War Department Circular No. 327. The basic policy expressed in that directive was that "in general, individuals physically qualified for limited service will be assigned initially only to noncombatant duties." The Surgeon General expressed the view that the idea that Medical Department units with divisions in combat areas could function effectively with limited service personnel was definitely fallacious. Few tasks, if any, performed by any arm or service required more stamina and

¹⁰ Memorandum, Col. George F. Lull, MC, Chief, Personnel Service, Office of The Surgeon General, for Training Division (Attn: Lt. Col. A. B. Welsh), 12 Sept. 1942, subject: Employment of Class I-B Personnel in Medical Department Units and Installations.

¹¹ Memorandum, Maj. Gen. James C. Magee, The Surgeon General, for Commanding General, Services of Supply (Thru: Military Personnel Division), 16 Oct. 1942, subject: Limited Service Personnel With the Medical Department.

physique than was required by company aidmen and litter bearers. The job of relieving combat elements of their wounded could not be accomplished by any but the physically strong and mentally alert.

Another important point The Surgeon General brought out was that large numbers of trained combat personnel, as a result of battle wounds and disease, would be reclassified from general service to limited service while in a theater of operations. Such personnel would be ideally suited for assignment to medical units, but not in excess of an effective balance between general and limited service personnel. This would represent the most effective use of available personnel already overseas. In order to permit such reassignment, it was imperative that medical units be shipped overseas with only a minimum number of limited service personnel already assigned.

The proposals made to the Commanding General, Headquarters, Services of Supply, by The Surgeon General were not adopted. Medical units assigned to service commands continued to receive limited service replacements for general service personnel up to 10 percent above the authorized strength. The cadres for theater medical units that service commands were required to produce were to consist of available general service personnel. This was to be done with the understanding that as the number of available general service personnel in service commands was reduced, so the requirement placed on them to furnish qualified cadres would be reduced.

The Director of Military Personnel, Headquarters, Services of Supply, observed that limited service personnel had the skills, aptitudes, and educational qualifications in the same proportion to general service personnel.¹² A test of the usefulness of limited service personnel, conducted at Fort McClellan, Ala., revealed that, with proper training, such men were capable of performing full military duty in a noncombatant organization.

Standards for Transferring Personnel to Oversea Destinations

Organizing, training, and equipping units for combat was the responsibility of each of the three major commands; that is, the Army Ground Forces, the Army Air Forces, and, to a limited extent, the Army Service Forces. Requirements for shipping such units overseas were met by these commands. Before departure of a unit from its home station, personnel were given a physical examination. Those found physically or mentally unfit were cleared from the units. These examinations were normally performed by medical personnel assigned or attached to the unit. Otherwise, examinations were accomplished through the assistance of the station surgeon. While waiting call from the port commander, units at staging areas continued training with emphasis on the physical condition of personnel. Before embarkation, personnel were given a physical inspection to determine whether any illness or physical

¹² 1st Indorsement [to Memorandum cited in footnote 11], Col. Russell B. Reynolds, GSC, Director of Military Personnel, Headquarters, Services of Supply, to The Surgeon General, 28 Oct. 1942.

deterioration had occurred since the examination given before leaving the home station.

During the mobilization period, it was contemplated that only personnel qualified for general service were to be sent to active theaters overseas, but as the demand for manpower grew, this policy was modified. When the induction of limited service men was authorized, the problem arose of determining which of these could serve in combat areas without adversely affecting the man or the military mission. Many limited service enlisted men were sent overseas as qualified to serve in these areas. Complaints were received in the Surgeon General's Office from commanding generals of oversea theaters, however, that men were arriving with units or as replacements who did not meet the standards for oversea service. One such complaint, received in August 1942, pertained to men sent overseas with visual defects below the standard authorized for members of combat units. This situation was clearly the result of careless examination or the lack of attention to recording results and other administrative detail, and the War Department emphasized the importance of correcting such deficiencies.¹³

In October 1942, the physical standards were lowered to allow the maximum number of men to be classified for general service, thus making them available for assignment to combat units. Before the release of MR 1-9 of October 1942, unit commanders, assisted by unit medical officers, were directed to equate the enlisted man's abilities and his physical capacity for the duties he was expected to perform in the unit. Wherever possible, men with nonprogressive physical defects were to be assigned to appropriate duties and thus release men without physical defects for the more physically exacting jobs which were part of the unit's mission. Men were to be reclassified and transferred to noncombatant or Zone of Interior organizations only when they could not fill a position in a unit or when transfer was recommended by a hospital commander after a period of hospitalization.

It was the duty of all unit commanders to appraise their men constantly, with the view to reclassifying enlisted men, when warranted, from limited service to general service. This required that both unit commanders and surgeons familiarize themselves with the limiting defects of men in their units, so that at monthly inspections both could give special attention to the possibility of reclassification.

On introduction of the Physical Profile Plan in 1944, more than ever, the assignment of enlisted men to combat units was based on physical capacity. At that time, the criteria required that an enlisted man sent overseas had to be physically qualified to perform the duties of his military occupational specialty under field conditions. A man was considered to have met this requirement when he was found to be physically capable during his training period in a replacement training center or in a unit. The unnecessary removal of a trained enlisted man from a shipment immediately before departure for overseas was

¹³ War Department Memorandum No. W40-2-42, dated 17 Aug. 1942.

considered a flagrant waste of military manpower and training, destructive both to the morale of the individual and to the efficiency of the unit. Oversea service physical standards for enlisted men were established in War Department Circular No. 164, issued on 26 April 1944, and was revised by War Department Circular No. 196, dated 30 June 1945. Defects which would disqualify personnel for shipment overseas were, as follows:

1. Pronounced psychiatric disorders. Men with psychiatric disorders, except psychoneuroses that were mild and transient in character, were not to be sent overseas with combat units or as casual replacements for the combat arms.

2. Hernia, except small incisional or umbilical hernias. Moderate impulse produced by cough at the inguinal ring or at the site of a scar was not to be considered necessarily as an indication of hernia. Diagnosis of inguinal hernia was to be based on the demonstration of a hernial sac.

3. Class I dental defects, except in those individuals whose only defect was the need of prosthetic replacements, and provided that, despite the missing teeth, they had been able to follow a gainful occupation in civil life and their histories indicated that restoration of the missing teeth was not essential.

4. Loss of either eye, with or without an artificial replacement.

5. Tropical diseases.—Individuals who had suffered from tropical diseases causing residual damage or sequelae, or tropical diseases such as filariasis, which would be liable to exacerbation or serious aggravation upon reinfection. This was not to include uncomplicated malaria, except that individuals who had or had had a clinical attack of malaria, or in whose blood malaria parasites were found, were not to be sent overseas until 6 months subsequent to the date of recovery, or of the disappearance of parasites from the blood.

6. Venereal disease.—Otherwise qualified enlisted men with venereal disease were eligible for oversea shipment except for those with the following conditions:

- a. Chancroid or undiagnosed penile ulcers.

- b. Primary and secondary syphilis, unless two injections of an arsenical had been administered.

- c. Sulfonamide-resistant gonorrhea as determined by failure to respond to one course of treatment.

- d. Gonorrhea with complications, such as epididymitis, arthritis, and severe acute prostatitis.

- e. Granuloma inguinale or lymphogranuloma venereum. (When penicillin was available on transports, all individuals with gonorrhea could be shipped except those with complications.)

7. Organic heart disease, including serious disturbance of cardiac rhythm, persistent arterial hypertension with systolic pressure above 160 mm. Hg or diastolic pressure above 100 mm. Hg.

8. Active peptic ulcer; chronic peptic ulcer, symptomatic within the past 5 years; history of peptic ulcer complicated by perforation, obstruc-

tion, bleeding, or surgical intervention; or history of gastric resection or gastroenterostomy.

9. Active tuberculosis, bronchiectasis.

10. Allergic states, such as asthma, severe hay fever, or severe skin sensitivity.

11. Thyroid enlargement with toxic manifestations, diabetes.

12. Perforated eardrum complicated by active disease, or when active disease has been present within the past 6 months.

13. Rheumatic fever or permanent organic sequelae from the condition, or history of uncomplicated rheumatic fever until a period of 6 months had elapsed.

14. Severe chronic skin conditions.

15. Uterine tumors, amenorrhea, menorrhagia.

16. Symptomatic flat feet, which during the period of training of the individual had prevented him from properly performing his duty.

17. Acute and chronic gonorrhea in women.

Enlisted men not meeting the standards requirements of War Department Circulars Nos. 164 and 196 were to be removed from shipments before departure from home stations rather than at staging areas. The examination of men at staging areas was limited to necessary physical inspections to determine the existence of communicable diseases, disqualifying venereal disease, and any marked deterioration since the examination given at the home station.

The criteria applicable to the disqualification of an enlisted man for shipment overseas did not necessarily apply in the event of any reevaluation made after arrival in the overseas theater. The existence of a nonprogressive or remediable defect or disease was not to be considered sufficient reason for returning a man to the United States, provided the defect could be remedied at facilities available in the overseas command, or if an assignment could be found that the man could fulfill within his physical limitations.

REDEPLOYMENT OF PERSONNEL FROM EUROPE TO THE PACIFIC AREA TO ENGAGE IN WAR AGAINST JAPAN

Following the defeat of Germany, existing procedures had to be reconsidered. Preparations had to be made for the intertheater movement of unit equipment and personnel, whether to the Pacific area directly or through the United States, and for the movement of personnel replacements between overseas commands. In this process, men were to be as carefully selected as they had been on initial selection and induction for service in the Army.¹⁴ Personnel already overseas were screened again, in accordance with the physical criteria

¹⁴ For a full explanation of the "point score" system devised for selecting personnel for redeployment, see footnote 1, p. 65.

which permitted their original shipment. This involved a reexamination to determine their physical and mental fitness for redeployment to still another oversea theater.

As a companion move to redeployment, a reduction in the strength of the Army was contemplated. The difficulties attending mobilization were met, in part, by relaxing physical standards. On this basis, it might have been supposed that the reverse action—a tightening of standards—would have produced the desired results. This was not the case, however, so that War Department standards previously in effect for oversea service were used for redeployment. It was found that no military advantage would be served by a more rigorous physical selection of men from the Zone of Interior. Consequently, the same standards were used in selecting men in the Zone of Interior for oversea service in the Pacific area as had been applied, for the same purpose, to men already serving in the European theater.

Unit commanders were not to be deprived of keymen on arbitrary or theoretical grounds. To insure positive implementation of this concept, the screening examination was to be performed by medical personnel organic to or serving with the unit. This not only carried out the established policy but also assured the efficient execution of the entire screening process. It seemed reasonable that the special knowledge which the unit medical personnel had gained of the men themselves, and the conditions of their service, would go far to insure that the redeployment screening procedure would be of excellent quality and geared to military fact.

Great care and considerable judgment were to be exercised in arriving at a decision that personnel were physically disqualified for further oversea service. Those who had performed their duties satisfactorily, but who, ordinarily, would have been disqualified under existing instructions, were to be permitted to accompany their units. This was not to apply, however, when there were indications that the defect would be subject to complications or aggravation by further oversea service.

The screening examination made on all individuals to be redeployed was to be supplemented by appropriate special examinations and laboratory procedures when indicated by the medical history or physical findings. All personnel found physically or mentally unfit were cleared from their units. Those not requiring hospitalization were not evacuated to the United States as patients but were returned by ordinary means of transportation.

Neuropsychiatric Considerations

Although it was an extremely difficult field in which to exercise definitive judgment at the unit level, the psychiatric evaluation derived particular benefit from knowledge of the men possessed by unit medical personnel.

Redeployment directives¹⁵ detailed the emotional qualifications for further oversea service; these were an expansion of the standards troops serving in theaters of operations had already been required to meet. Disqualifying conditions were—

1. Psychoses.
2. Marked degrees of psychopathic personality.
3. Marked mental deficiency.
4. Chronic, disabling, psychoneurotic disorders.
5. History of definite psychosis.

The borderline group (defects not disqualifying of themselves) included—

1. Psychopathic personality.
2. Psychoneuroses of mild and moderate severity.
3. Definite history of the above conditions.

The criteria aiding diagnosis of the borderline group were outlined as—

1. The severity and duration of symptoms.
2. The type and degree of external stress precipitating the symptoms (imminence of departure overseas, domestic difficulties, physical disorders, recent debilitating physical disorders, and serious job misassignments).

3. The individual's basic personality, strength, and nature of previous adjustment and performance.

4. The actual impairment of the individual's functional capacity.

All moderate or severe neurological disorders were to be excluded from further oversea assignment. Inconsequential paralyses, on the other hand, such as the residuals from a mild poliomyelitis were not to be excluded. Neither were lesions of the cranial or peripheral nerves which were not likely to interfere with military duties or variations which were clearly within psychological limits, such as minor tremors, to be excluded.

The "borderline group" was defined as those having psychoneurotic symptoms of mild to moderate severity. It was specified that an individual clinical judgment was to be made in each case. This was to be accomplished on the basis of severity and duration of symptoms, the type and degree of stress precipitating the symptoms, the basic personality strength and adjustive capacities of the individual, and the actual impairment of his functional capacity.

Evaluating Infectious Diseases

Men who had recovered from acute and infectious diseases were generally to be judged qualified to move overseas or to be redeployed. Men with complications or aftereffects which were likely to become aggravated, on the other hand, were not to be considered qualified for oversea duty. This was to

¹⁵ Letter, Maj. Gen. J. A. Ullo, The Adjutant General, War Department, to Commanding Generals, Army Air Forces, Army Ground Forces, Army Service Forces; to Commander-in-Chief, Southwest Pacific Area; and to Commanding Generals, Theaters of Operations, Defense Commands, Alaskan Department, Northwest Service Command, Military District of Washington, and Independent Commands under the War Department, 9 Apr. 1945, subject: Inclosure No. 1 (Preparation of Inter-Theater Movements) to Annex B "Redeployment Movements," inclosure thereto.

include, also, those in whom reinfection might be serious. An example of such complications was given as the men who suffered from filariasis, wherein the threat of repeated filarial infection carries the threat of permanent damage. An exception to this rule was uncomplicated malaria. The previous practice had been to defer movement of those suffering from the disease until 6 months after the last attack, or until 6 months after the parasites had disappeared from the blood. For redeployment, or dispatch overseas, this criterion was liberalized to the extent that simple malaria was to be treated as any other acute infectious disease. If this had not been done, redeployment of troops, especially from the Mediterranean theater, might have been unnecessarily difficult. Some men might have been motivated to avoid taking suppressive Atabrine (quinacrine hydrochloride) and thus permit manifestation of the symptoms of malaria with which they were afflicted.

Remediable Defects

Steps were to be taken to correct any remediable defects found. Men with such conditions were not to be transferred from their units on this account alone. Dental defects, for example, were to be corrected, insofar as possible, before embarkation from the theater. Other minor defects were to be corrected, also, in the theater or in the Zone of Interior assembly stations.

Recording Limiting Defects

An interesting feature of the examination to determine eligibility for redeployment was the recording of any real defects found, along with the physical profile serial. This was to be entered on W.D., A.G.O. Form No. 20, "Soldier's Qualification Card," and was to include a statement of the limitations in assignment imposed by the defects. This step was an important aid when reassignment became necessary. Moreover, its value was enhanced by the fact that judgment of the man's condition and his limitations was being made by the unit medical officer, who had firsthand knowledge of both the physical condition of the man and the kind of duty the unit was normally called upon to perform.

Screening Neuropsychiatrics and Individuals Recovered From Cold Injury

Individuals diagnosed as having neuropsychiatric conditions and those having recovered from cold injury represented two large groups of particular interest in the redeployment screening process. When screening began, there was no way of knowing just how large these groups would be. It was known that many had been evacuated to the Zone of Interior for these and other reasons. It was known, also, that some had been killed and that hospital admission counts contained duplication within and between the two groups. Even

with all due allowance for the reduction in the aggregate number of these groups, the size of both was still formidable. In the European and Mediterranean theaters, there had been no fewer than 82,000 admissions involving cold injury and 125,000 for neuropsychiatric conditions in 1944 and 1945 alone.¹⁶

In evaluating men in these groups for redeployment, two possible difficulties were apparent: (1) Men could have been pulled out of their units on these grounds alone, which would have been incorrect; and (2) men could have been cleared for shipment to the Pacific area, only to fail there under combat conditions—thus causing an injustice to the man, the service, and the Nation. Obviously, errors of this kind are not compensating, but no definite solution or guidance could be furnished. Consequently, reliance was placed upon the judgment and experience of the unit medical officers performing the screening examinations, guided by broad War Department policy, to the end that, from the military standpoint, the best possible determinations would be made at that level.

Command and Medical Interests

It was perhaps natural for commanders to view with some anxiety the impending redeployment screening process for the physical reevaluation of their men. They were concerned about retaining the men they knew were best qualified to aid them in performing unit missions. As it developed, however, command interest was amply safeguarded in that (1) standards were the same as those governing any oversea movement, (2) unit medical officers performed examinations insofar as practicable, and (3) men who had already served usefully overseas were not to be removed from their units unless their defects were subject to complications or aggravation by further oversea service. These factors made up the principle upon which redeployment standards were based and applied. With this recognition of command interest, which in the last analysis was identical to the medical interest, troops redeployed to the Pacific area were physically and emotionally adequate for the mission.

RECLASSIFICATION OF OFFICERS

Reclassification Boards

On 25 August 1941, AR 605-230 (Tentative) covering the subject of reclassification of officers was issued, superseding AR 650-230, issued on 7 June 1941. The regulations were intended to conserve the commissioned manpower of the Army and to provide a means of eliminating officers who were found unsuitable.

The term "reclassification," as it applied to an officer, was defined as those procedures necessary to place the individual in the proper assignment or to

¹⁶(1) Medical Department, United States Army in World War II. Cold Injury, Ground Type. Washington: U.S. Government Printing Office, 1958, p. 494. (2) Medical Department, United States Army. Neuropsychiatry in World War II, Volume II. Overseas Theaters. [In preparation.]

separate him from the service. Separation was to occur when there had been a lowering in efficiency, and retention in the service was viewed as undesirable. The instructions were applicable to officers both in the Regular Army and in the Army of the United States.

Generally, reassignment was permitted when it was apparent that it would result in better performance of duties. Normally, when unsatisfactory performance was noted in an officer by a commander, action was to be taken to have the officer relieved from duty. If unsatisfactory performance was not due to misconduct, habits, or traits of character, the commander was to report the matter to the next higher commander having authority to appoint reclassification boards, instead of taking action to cause the individual's relief from active duty. Reclassification cases were then to be referred to a reclassification board. Although a medical question was not necessarily involved, an officer to be reclassified was directed to appear for a physical examination, the results of which were furnished to the president of the reclassification board.

Normally, reclassification boards consisted of not less than five officers, one of whom was to be a medical officer. Officers appearing before such boards were entitled to counsel. As a result of board action, recommendations were to be forwarded to the convening authority, who was to recommend demotion, reassignment to a suitable duty, demotion and reassignment, observation and treatment in an Army hospital, or other suitable action.

It was emphasized that reclassification proceedings were not to have been initiated merely to accomplish reassignments. Normally, an officer's services were to have been rated unsatisfactory before reclassification proceedings were initiated. Moreover, the proceedings were intended to insure that the rights of the officer concerned were not prejudiced and were to assist in the preparation of a factual record of the case. Although AR 605-230 was reissued and changed many times during the war, the basic procedures remained much as they were when originally conceived. Numerous administrative modifications were made, however.

Disposition of Physically Incapacitated Officers

On 15 October 1941, War Department Circular No. 217 announced that the determination of line of duty and fitness for all officers on active duty would be as prescribed for officers of the Regular Army. An officer on extended active duty was to be ordered before an Army retiring board when found incapacitated for further active duty by a line-of-duty board or a disposition board at a general hospital (ch. V). Such cases were to involve illness or injury whether or not conditions were found to have been incurred in line of duty. If the Army retiring board found the officer incapacitated for further duty, he was to be relieved from active duty. Officers (Reserve and National Guard) who previously had been relieved as a result of physical disqualification without the benefit of the Army retiring board review were permitted to apply for appearance before it.

Shortages of Officers Bring Changes

By March 1942, the need for officers for all purposes became so great that, in addition to granting waivers for physical defects,¹⁷ War Department Circular No. 83, dated 21 March 1942, directed the suspension of retirement board proceedings on all officers except those who were too incapacitated to perform even limited duty and those whose retirement was legally mandatory. The same directive also contained the general authorization for the assignment of officers in a limited service status. Under this policy, the fitness of an officer was to be determined more by his ability to do his work from day to day than by the presence of certain defects. His discharge or retirement for physical reasons alone was not to be considered as long as his daily work was satisfactory. On this basis, then, general hospitals were authorized to reclassify officers from a status of "general service" to that of "limited service," if the physical condition so justified. If an officer was found qualified for limited service, he was returned to duty. Thus, many officers who formerly would have been sent before retirement boards for possible separation from service were recommended for limited duty by hospital disposition boards and were not considered for retirement during the period when the need for manpower was greatest.

In October 1942, it was found that many former officers, whose commissions had been terminated solely by reason of physical disability, subsequently had been drafted as enlisted men. When this was revealed, instructions were issued in War Department Memorandum No. W605-14-42, dated 11 October 1942, providing for reappointment and return to active duty of such individuals, if they were otherwise qualified. Officers on duty who could meet the limited service qualifications for enlisted men were to be kept on duty as officers.

Limited and General Service Classification

In War Department Circular No. 82, dated 24 March 1943, examining facilities were cautioned that the Army should not be deprived of the services of capable officers already in the service. It was pointed out that officers who in the course of routine examinations or during hospitalization were found to have certain asymptomatic conditions, such as mild degrees of diabetes mellitus, arterial hypertension, nerve deafness, hypertrophic arthritis, and similar defects, might have a service expectancy of several years.

¹⁷ In an effort to protect the Government from future claims relative to nonservice connected defects or disabilities, individuals examined for appointment or for assignment to extended active duty who had defects requiring waivers were to acknowledge the existence of the defects in an affidavit to accompany the physical examination report. However, if the individual refused to sign this statement, the report of physical examination was forwarded to the reviewing authorities without it. The requirement, in the end, served little purpose for the legal authorities decided an individual could not sign away any rights that he might possess as to possible future pension benefits. Section 105 of the "Servicemen's Readjustment Act of 1944" (act of 22 June 1944 [S. 1767]) provided "no person in the Armed Forces shall be required to sign a statement of any nature relating to the origin, incurment or aggravation of any disease or injury he may have, and any such statement against his own interest signed at any time shall be null and void and of no force and effect."

During this period, when an officer was believed to have become physically incapable of performing the duties of his office, his commanding officer was to direct that a board of medical officers perform a complete physical examination, unless one had been performed recently. As a result of examination, an officer could be ordered to the nearest general hospital. This was to apply whether he had been initially rated as physically capable for general service, but later considered physically incapable of performing such duties, or whether he had been classified for limited service and was considered physically incapable of doing his job. Hospitalization in both of these cases was to be for the purpose of observation, treatment, and recommendation as to the type of duty, if any, the officer was physically capable of performing.

An officer who had been ordered to active duty with a waiver of defects to qualify for limited service was not to be ordered later before a retirement board simply on the basis of defects which had been waived. If, however, there had been marked aggravation of the waived defects, or the defects themselves were the cause of hospitalization, then this prohibition was not to apply. An officer believing himself incapacitated could initiate action on his own behalf by submitting a written statement to his commanding officer.

Evaluation by Disposition Boards at General Hospitals

Officers hospitalized for observation, treatment, and recommendation as to the type of duty for which they were physically qualified were to appear before the hospital disposition board. Such boards were to classify officers as qualified either for general service or for limited service, or disqualified for any type of military duty. Recommendations in those qualified for limited service were to include a statement as to the general type of duty the individual was suited to perform.

An officer reclassified for limited service was released from the hospital and returned to his unit, and his commanding officer was notified accordingly and advised of his status. Officers recommended for appearance before Army retiring boards were retained in a hospital status pending appearance before the board (ch. V). General officers were given dispositions issued separately in each case by the War Department. All Air Force officers were assigned as specified by the Commanding General of the Army Air Forces.

Change From Limited Service or General Service Status

An officer classified for limited service who had reason to believe that the conditions causing this classification no longer existed could request a physical reexamination, provided he had served in that status for at least 90 days. Such action could also be initiated by his commanding officer.

Reexamination was to have been made by a board of at least two medical officers, if available. Otherwise, one medical officer would suffice. A thorough

examination was to be given and all medical records were to be reviewed. If it was the board's opinion that the officer was physically qualified for general service, he was ordered to a general hospital where he was again examined, and a recommendation was made as to his final status by the hospital disposition board.

In July 1943, a significant change in reclassification procedures was effected. Instead of disposition boards at general hospitals making the final recommendation as to the reclassification of an officer from general service to limited service, such men were to appear before Army retiring boards. All Medical Department officers, exclusive of the Veterinary Corps, were excepted. Later, only Medical Corps officers were excepted. Officers who had been classified for limited service upon initial appointment were to appear before Army retiring boards only when the limiting defect had become markedly aggravated, or when they had been hospitalized for another defect which was permanently incapacitating for general service. Disposition boards could recommend retention of an officer on temporary limited service. This classification was to include officers who were only temporarily incapacitated for general service. In such instances, disposition boards were required to document in the board proceedings the date the officer was to return to the hospital for determination of his qualifications for general service or permanent incapacity.

The War Department issued separate disposition instructions in November 1943¹⁸ for officers permanently incapacitated for general service but who were recommended for retention in a limited service status by Army retiring boards. Officers so affected were to be relieved from active duty if they did not desire to remain. Meanwhile, The Surgeon General was directed to include in his review of each case a recommendation as to whether the officer concerned should be retained in a limited service capacity. When The Surgeon General's recommendation did not concur with that of the Army retiring board, the case was to be referred to the Secretary of War's Personnel Board. If The Surgeon General concurred in the recommendations of the Army retiring board, or if he did not concur and the Secretary of War's Personnel Board subsequently recommended that the officer be retained in limited service status, The Adjutant General was to endeavor to secure an appropriate assignment for the officer, if the officer agreed to such retention.

If an officer was permanently incapacitated because of wounds received in combat, and no suitable assignment could be found, assignment responsibility was to be turned over to the major command to which the officer had been assigned before hospitalization. Officers not so incapacitated who were under 38 years of age also were assigned to the major command to which they had been assigned before hospitalization, provided they met the minimum standards for induction which were applicable to enlisted men. Officers over 38 years of age

¹⁸ Letter, The Adjutant General, War Department to Commanding General, Army Air Forces; Commanding General, Army Ground Forces; and Commanding General, Army Service Forces, 1 Nov. 1943, subject: Instructions Relative to Retention of Officers on Active Duty for Limited Service.

and those who, regardless of age, did not meet the physical standards for induction of enlisted men were to be relieved from active duty.

If the Army retiring board recommended retention of an officer in a limited service capacity and neither The Surgeon General nor the Secretary of War's Personnel Board concurred, the officer was relieved from active duty, provided the officer was over 38 years of age or was unable to meet the minimum standards for induction of enlisted men. The reason for retaining officers under 38 years of age who met the minimum standards for induction was to preclude their being drafted as enlisted men after relief from active duty as officers.

In February 1944, that portion of the instructions dealing with retention of a physically incapacitated officer in a limited service capacity, provided he agreed, was rescinded in regard to Medical Corps and Dental Corps officers and to chaplains. If such officers were qualified for limited service, they were to be retained, regardless of their individual desires to be relieved.

In April 1944, the War Department authorized the assignment of battle-casualty patients in a temporary or permanent limited service status. This was brought about because many officer patients were undergoing treatment as battle casualties in general hospitals in the continental United States. These officers required several months of additional treatment before they would be ready for final disposition, but their physical condition and treatment did not interfere appreciably with their ordinary daily activities. Moreover, if they were assigned to staff and other headquarters duties, their services could be utilized with benefit to both the individual and the Government. Examples of such cases were those with peripheral vascular disturbances and conditions requiring a series of operative procedures, especially plastic surgery (except for extensive facial disfigurement).

Changes to Reclassification Instructions

On 14 October 1944, War Department Circular No. 403 was issued, which dealt exclusively with the subject of physical reclassification of officers. Prior instructions, issued from time to time in separate War Department letters, were consolidated in this circular.

The physical standards for the evaluation of officers for general and limited service were to be as prescribed in AR 40-100 (appendix D, p. 249) and AR 40-105 (appendix C, p. 209).

The instructions contained in War Department Circular No. 403 were again changed on 7 April 1945, when War Department Circular No. 109 was issued. It was a complete restatement of the instructions relative to the physical classification of officers. In it, the hospitalization of officers overseas was covered. It provided that reclassification in these instances was to be handled in accordance with the policies prescribed by the respective theater commanders. This regulation was greatly expanded, but mostly in the area of administrative procedures.

On 12 October 1945, War Department Circular No. 109 was rescinded and replaced by War Department Circular No. 313. This regulation emphasized a liberal approach to the interpretation of regulations in connection with the retention of officers in a limited service capacity. Factors to be considered were the individual's age, grade, branch of service, and MOS (military occupational speciality), as well as the record of his satisfactory performance of general service over a reasonable period of time.

There were several intervening directives issued during 1945, but all were essentially administrative in nature.

Oversea Assignment of Officers

On 19 October 1942, War Department Circular No. 349, section III, authorized oversea assignment of some officers who were physically qualified only for limited service. These instructions as amended by War Department Circular No. 86, issued 27 March 1943, also authorized the use of officers of the Army Specialist Corps who did not meet the standards for general service. Officers who were classified for limited service could proceed overseas, provided the physical defect causing that classification was of a static nature, nonprogressive, and not subject to the development of complications. Defective vision, defective hearing, and static orthopedic conditions were in this category. Officers classified for limited service with a waiver of defect involving either cardiovascular, genitourinary, gastrointestinal, psychoneurotic, or endocrine conditions were not to be given oversea assignments.

The policy regarding the oversea shipment of limited service officers was liberalized in War Department Circular No. 102, issued on 11 March 1944, with a concurrent lowering of the individual's physical capacity for the duties he was expected to perform. Limited service officers and warrant officers with mild hypothyroidism and syphilis, other than tertiary, could be considered for assignment overseas. Conditions which disqualified limited service officers and warrant officers for shipment overseas were more carefully delineated at that time, as follows:

1. Organic heart disease, including serious disturbance of cardiac rhythm, persistent arterial hypertension with systolic pressure above 180 mm. Hg or diastolic pressure above 100 mm. Hg.
2. Peptic ulcer, or history of gastric resection or gastroenterostomy.
3. Asthma which has been incapacitating anytime during military service; also bronchiectasis.
4. Thyroid enlargement with toxic manifestation; diabetes mellitus.
5. Symptomatic prostatic hypertrophy; a kidney stone condition (nephrolithiasis).
6. Mental disorders of all types in which there was a history of previous incapacitating episodes or definite incapacitating symptoms currently.

7. Rheumatoid arthritis; history of rheumatic fever within the last 6 months; residual damage or sequelae from tropical diseases; diseases such as filariasis which were liable to exacerbation or serious aggravation upon reinfection; tertiary syphilis (osseous, visceral, or neurosyphilis).

8. Hernia, except small incisional or umbilical.

War Department Circular No. 406, section VIII, 16 October 1944, announced that medical officers with inguinal hernia, if this was their only defect, could be assigned to numbered general or station hospitals, which normally were placed in base sections far behind the frontlines.

In War Department Circular No. 196, dated 30 June 1945, existing instructions were amplified concerning the utilization of manpower based on physical capacity. General principles were outlined, and the policy on both officers and enlisted men was summarized. Instructions were made more specific concerning physical standards applicable to the shipment of personnel overseas. There was no change with regard to general service officers. For limited service officers, the examination could be limited to determining whether the defects initially resulting in the limited service classification were also disqualifying for oversea service. In some exceptional circumstances, limited service officers, even though disqualified for oversea duty, could have been authorized by the War Department to perform temporary duty overseas for periods not to exceed 90 days.

CIVILIAN PERSONNEL IN THE ARMY OF OCCUPATION

At the time when an army of occupation was being formed in Europe, and troops were being redeployed to the Pacific area, it was seen as both necessary and practical to send a civilian work force to supplement the Army. The matter of physical qualification for such service was regarded as important to civilian personnel, if not to the same degree, as it was for the military. Consequently, in November 1944, The Surgeon General developed appropriate standards for later use in the physical evaluation of civilian personnel. As in the case of physical standards for inductees contained in MR 1-9, examining physicians were advised not to construe the standards for civilian personnel arbitrarily or rigidly, but to use them as a guide to their discretion.¹⁹

CONCLUSIONS

The process of evaluating personnel for retention in the Army was enormously important in solving the total problem of acquiring, training, and employing sufficient manpower for carrying out the Army's mission. The medical interest and responsibility in this problem, from the standpoint of

¹⁹ Memorandum, Col. J. F. Lieberman, MC, Director, Physical Standards Division, for Mr. Jacobson, Oversea Branch, Civilian Personnel Division, Office of the Secretary of War, 4 Nov. 1944, subject: Standards of Physical Examination of Civilian Personnel for Duty in Europe.

evaluating physical capacity to serve, involved the Physical Profile Serial System, reclassification, limited service, oversea assignment, and redeployment.

The Physical Profile Serial System, an adaptation of the Canadian system, was a method by which job assignment within the Army was to be made, based on the physical capacity and the skills of the individual. The system was brought about by the realization that the Nation's manpower pool was being depleted at an alarming rate and that better utilization of those already in the service was necessary. Because it came rather late in the war, it must be viewed as being only a limited success. The system permitted a better composite and total evaluation of the individual's proficiencies and capacities, but it failed to give an adequate indication of the various levels of employment for which the respective degrees of capacity were suited. It was an experiment which paved the way for future study, refinement, and use.

The term "limited service," as used in the U.S. Army in World War II, described a broad category of physical capacity which included individuals with certain physical defects but who were otherwise qualified for general service. During the period of limited emergency preceding World War II, men qualifying for limited service were not inducted into the Army. At the start of World War II, manpower requirements were such that this luxury could not be tolerated and limited service personnel were taken into the service to fill out both the officer and enlisted ranks. At the same time, there was the urgent consideration of taking any man into the service who was physically and mentally capable of making an effective contribution, but the possibility of future claims against the Government and other losses was ever present. Consequently, attention and regulations were focused on, and directed toward, the category of limited service. For the most part, limited service men were assigned to noncombatant duties. For this reason, a large percentage of them were assigned to medical installations at all echelons behind the combat zone. In the combat areas, The Surgeon General insisted that medical personnel had to be at least the physical equal of combat soldiers. In this, he met with only limited success.

With the defeat of Germany, the shift of emphasis was back toward the Pacific area. The redeployment of many thousands of seasoned combat and service troops to that area from Europe for the war against Japan became a matter of urgent military necessity. In fairness to both the vital interests of the Nation and the individual selection for redeployment from the medical standpoint was to be based on the then current physical standards for shipment overseas. This applied whether individuals were shipped with units or individually as replacements and whether shipped directly from theater to theater, or through, or directly from, the United States. The key to successful evaluation for this purpose in War Department policy rested on the judgment of the unit medical officer. Unit medical officers were in the best position to know the individual's capacity to function efficiently in the unit mission. Men who had already served usefully overseas were not to be transferred from their units unless their

defects were subject to complications or aggravation by further oversea service.

The physical reclassification of officers embraced a policy wherein officers were to be retained if they possessed the capability and capacity to perform in an available assignment. Toward this end, the procedures for evaluating all officers—whether Regular Army, AUS, or National Guard—were standardized. For the most part, the basis of decision was reduced to a purely medical question.

The shortage of officers was highlighted early in the war with the shortage of qualified materiel procurement specialists in the supply arms and services. By March 1942, however, this shortage had become general, and retirement board proceedings were virtually halted. The criteria for retention became a matter of the individual's fitness and ability to do his work from day to day, rather than the existence of certain physical defects. Discharge or retirement for physical reasons alone were not to be considered so long as the individual's daily work was satisfactory.

Officers were reclassified from general service to limited service and then retained in the latter category with waivers of otherwise disqualifying defects, if necessary. It must be said that the most liberal standards possible were made applicable to officers. The only justifiable basis for release from the service was complete incapacity due to physical or mental causes, excluding indifference, inaptitude, or incompetence.

CHAPTER V

Separations

All World War II and demobilization separations from the U.S. Army involved the use of physical standards to help determine fitness. When it was concluded that an enlisted man had become disabled in the line of duty or that he had an existing defect which was seriously aggravated by military service, the man was entitled to treatment and a certificate of disability for discharge or both. The certificate of disability for discharge and accompanying description of the extent of defects became the basis for any Veterans' Administration pension or other benefit claims against the Government. A disabled enlisted man with 20 years' service became entitled to retirement or pension benefits.

Officers (Reserve and National Guard as well as Regular Army) disabled in the line of duty and limited service officers whose defects were seriously aggravated by service became eligible for disability retirement. Officers and enlisted men who became disabled not in the line of duty were subject to separation from active duty after treatment. Determinations of fitness or eligibility for discharge or retirement were made at any time an individual's physical condition so indicated or during the general demobilization at the end of the war.

LINE-OF-DUTY DETERMINATION

Before an officer or enlisted man could be retired, or an enlisted man discharged with a certificate of disability, a determination that a defect did exist and that it had been acquired in the line of duty had to be made in accordance with current regulations.¹

The policies concerning line-of-duty determinations with regard to disability or injury were generally the same for officers and enlisted men.² They changed many times during the war, with each change being more favorable to the individual than to the Government. Disabilities caused by wounds or injuries were easily related to military service, as were impairment of vision or hearing. Chronic and long existing diseases, and degenerative conditions normally occurring with increasing age, however, presented a far more difficult problem. The crux of the case rested in the question: Is this the natural progression of a preexisting disease, or is the military service responsible for

¹ The steps involved in the retirement and discharge processes are discussed in chapter IV and on page 111 of this chapter. Line-of-duty determinations could be made by a line-of-duty board or by a hospital disposition board and the local commanding officer, depending upon the situation.

² (1) War Department Circular No. 217, 15 Oct. 1941. (2) War Department Circular No. 226, 27 Oct. 1941. (3) Memorandum, The Adjutant General, for the Assistant Chief of Staff, G-1, 8 Sept. 1941, subject: Line of Duty.

the aggravation and progression? In 1941, the War Department established the policy that, except when medical judgment or records indicated that a defect had existed before service, any diseases or injuries manifested more than 6 months after entry on active duty were to be considered "line-of-duty—yes." Conditions appearing before that time were usually to be considered as not in the line of duty unless there was a definite service connection.

Determinations also had to be made as to whether or not a disease or injury which existed before acceptance into the service had been permanently aggravated thereby. In making this determination, consideration was to be given to the usual course of the condition in question. Conditions normally expected to deteriorate at the rate found were to be considered not in the line of duty. Decisions were not to be influenced by any extraneous or contributory causes peculiar to military service.

Injuries

In every case of injury, organization commanders were to take immediate steps to help determine the line-of-duty status from all available evidence. In the absence of corroborating evidence and when the line-of-duty status was in doubt, the unsubstantiated statement of the individual was not to be considered as conclusive evidence of the true circumstances under which an injury had been incurred. Injuries considered to have been incurred in line of duty, provided misconduct or gross negligence was not a contributory factor, were (1) battle casualties, (2) injuries incurred while operating or riding in government vehicles or airplanes, and (3) injuries sustained while on maneuvers or during authorized athletic exercises or otherwise while engaged in the execution of military duty.

Original Policy Liberalized

This rather strict policy, established in late 1941, was relaxed intermittently in detail until May 1944, when in War Department Circular No. 205 it was revised and materially liberalized. In general, all diseases and injuries were then to be considered as service connected, unless—

1. They were incurred as a result of the individual's own misconduct.
2. They were incurred while the individual was absent from duty without official permission.
3. They were incurred as a result of the individual's activities in pursuing a private avocation or business, not of a class specifically authorized and encouraged by the War Department.
4. They grew out of the individual's relations unconnected with the service.
5. They existed before the individual's current active service and were not aggravated by such service.

At that time, venereal disease was still to be considered the result of misconduct unless satisfactory evidence could be produced to show it was acquired innocently, as from the individual's husband or wife.

Under this new policy, length of service was no longer a critical factor. Except for deficiencies noted on the "Report of Physical Examination," W.D., A.G.O. Form No. 63, prepared at the time of acceptance for service, a member was presumed to have been in sound condition. Even when so noted, there was to be an assumption of service aggravation unless specific findings of natural progression of the disease or injury were heavily overriding. There was, however, a clause which permitted exception to this basic rule when unmistakable evidence indicated that the injury or disease, or the causative conditions, although not noted, existed at the time the individual entered on active duty.

Defects that were incapacitating because of certain diseases in which the onset was insidious and progression was slow were not of themselves to be considered as evidence of increased disability. These were described as neoplasms; most endocrine disturbances, except hyperthyroidism or diabetes mellitus; epilepsy; arteriosclerosis; hypertrophic (degenerative) arthritis, commonly designated as osteoarthritis; and other chronic and degenerative diseases of this type. In this regard, it was established that such incapacitating defects might arise as the natural consequence of preexisting conditions, and not be incident to service or aggravated thereby, unless there was some pertinent local injury, or an abrupt and sudden pathological development during active service.

Advancement of certain other conditions, on the other hand, was expected to have been caused by the unusual exertion, exposure, or other adverse influence of military service. Some of these were defined as peptic ulcer; rheumatoid arthritis; diabetes mellitus; active pulmonary tuberculosis; and bronchial asthma, not established as seasonal.

Other preexisting conditions were to be declared "line-of-duty—yes," unless they were clearly and unmistakably shown as having undergone no increase in severity during active service. These were defined as acute infections, such as pneumonia; acute rheumatic fever, even though recurrent; acute pleurisy; acute ear disease; and other diseases such as hemoptysis, lung collapse, perforating ulcer, decompensating heart disease, coronary occlusion or thrombosis, and cerebral hemorrhage.

Change in Policy for Venereal Disease

In War Department Circular No. 458, dated 2 December 1944, another significant liberalization of the policy was effected. All cases of venereal disease were to be considered line of duty. One exception to this was when the individual failed to comply with the instructions in Army regulations covering such cases. Individuals involved were to report the disease and to receive treatment for it. The only other exception was when the condition had existed before the individual's entry on active duty. In the absence of these exceptions, the acquisition of syphilis, gonorrhea, chancroid, lymphogranuloma venereum, or granuloma inguinale while in the Army was to be considered service connected. The same

evaluation was to be made for conditions that were unmistakably the results of venereal infection, such as paresis, tabes dorsalis, and so forth.

Early Line-of-Duty Experience for Officers

A substantial number of officers were separated from the service with disabilities that were not found to be service connected. Approximately 7,600 of these separations were based on the original policy. In order to equalize treatment of all officers separated, the War Department appointed a special Army retiring board to review these earlier cases on the basis of the later more liberal policy. The board functioned from about July until October 1944. During this period, all 7,600 cases were reviewed, with the result that in approximately 10 percent of the cases, the disability was reclassified as in line of duty.

SEPARATION OF ENLISTED PERSONNEL

On 26 November 1942, AR (Army Regulations) 615-360, "Enlisted Men: Discharge; Release From Active Duty," was republished, replacing the regulations published on 4 April 1935, and numerous War Department circulars. Enlisted men were separated from the service as a result of physical or mental evaluation under one of three sections of these regulations. Specifically, these were section II—Disability; section VIII—Inaptness or Undesirable Habits or Traits of Character; and section X—Convenience of Government. Separations under the provisions of section II were commonly referred to as "CDD's" while those under sections VIII and X were referred to, broadly, as "administrative."

Certificate of Disability for Discharge

Discharges under section II of AR 615-360 were granted to enlisted men when a CDD (certificate of disability for discharge) was issued. This document certified that the individual had become unfit for military service because of a physical disability. Such discharges also were granted to enlisted men who entered the service with defects qualifying for limited service, but who, subsequently, had acquired disqualifying defects. It also included limited service men whose existing defects had been aggravated by military service to the extent that they were disqualifying under current standards for induction.³

Separation under this authority, however, was not to take place if the individual was capable of performing some useful service. Toward this end, full use was to be made of the reclassification procedure.

³(1) War Department Circular No. 161, 14 July 1943. (2) Memorandum No. W615-64-43, Maj. Gen. J. A. Ulio, The Adjutant General, War Department, The Adjutant General's Office, 26 Aug. 1943, subject: Discharge of Enlisted Men Under Section III, Circular No. 161, War Department, 1943.

A man becoming unfit for service because of a physical disability was to be hospitalized in a military hospital in the United States. There, he was to be treated in an attempt to improve his condition so that he could be returned to duty. When this was not possible, and further hospitalization was required, the man was given a certificate of disability for discharge from the Army of the United States. He was then transferred if his disability was incurred in line of duty to a Veterans' Administration hospital. Terminal cases, or those whose life or recovery would have been endangered by such transfer, were retained in the service while patients in a hospital. Those incurring a disability determined to be not service connected, with the exception of neuropsychiatric cases, could be retained in the Army up to 6 months, unless sooner discharged. If a disability incurred not in line of duty required hospitalization beyond 6 months, special arrangements were possible for retention of the individual in the Army hospital as a discharged enlisted man. Men determined to have a neuropsychiatric disability which was incurred not in line of duty were placed in the custody of the nearest relative, or otherwise delivered to civilian authorities. Those with neuropsychiatric disabilities incurred in line of duty were transferred to a Veterans' Administration hospital for further treatment, as appropriate.

When it was determined that a man was to be separated on a certificate of disability for discharge, W.D., A.G.O. Form No. 40, was initiated by his commanding officer sufficiently in advance of the expected discharge date and dispatched to the hospital commander. The commander then convened a board of medical officers consisting of three members who made a critical examination of the man. The results of the examination were entered on the W.D., A.G.O. Form No. 40 with specific reference to the origin of the disability, together with a careful description of the disability, wound, or disease. This was to be done because service connection was always the basis of a claim for pension and other benefits.

The broad authority to actually issue a discharge under these conditions was vested in the commanding generals of the service commands, but, depending on the circumstances, this authority could be delegated to commanders of lower echelons. When action on W.D., A.G.O. Form No. 40 had been completed by the board of medical officers, the hospital commander made the appropriate disposition for execution of final discharge. Commanders were to exercise extreme caution and to be assured that the disablement was permanent. Moreover, the certificate of disability for discharge was not to be used when the individual, possessing the characteristics qualifying under section VIII, was deemed mentally responsible for his actions. If he was not found to be mentally responsible for his actions, then the CDD discharge could be executed. In this connection, examining physicians were enjoined to be particularly careful in evaluating the facts relative to service connection of the disability. W.D.,

A.G.O. Form No. 40 was to be forwarded to The Adjutant General. At the same time, a report of the case was to be made by the hospital commander to The Surgeon General. When the facts suggested that the man might be entitled to a pension, assistance in preparing an application was to be given the individual by the unit commander or the personnel officer.

The form of discharge in such cases was to be an honorable discharge from the Army of the United States (W.D., A.G.O. Form No. 55) unless the board of medical officers had indicated otherwise. If it was determined that the disability was incurred apart from line of duty due to the individual's own misconduct, the so-called "blue" discharge from the Army of the United States was to be given. Misconduct in this case included any occurring during or before the man's current service if it was the cause of the existing disability. In such cases of misconduct, an honorable discharge could be given if the disability had been noted at the time of enlistment, or if the board determined that, by virtue of honest and faithful service, the man was entitled to an honorable discharge. Otherwise, in cases of misconduct occurring before service, the board was always to examine the facts to determine whether or not fraudulent enlistment was involved.

Section VIII Discharges

Section VIII discharges were granted to enlisted men who, while mentally responsible for their actions, were inapt or unadaptable for military service. These discharges applied, also, to those with bad habits and traits of character, or physical defects caused by their own misconduct, which made their retention undesirable.

When an enlisted man was believed to possess these characteristics, his commanding officer submitted a report of the facts to the next higher commander. Upon its receipt, the latter convened a board of three officers, one of whom was to be a medical officer, to decide whether or not the man should be discharged. Heavy reliance in these cases was placed on the testimony of a psychiatrist, who was to have examined the man.

Boards for this purpose operated strictly in accordance with rules of evidence normally applying to special court-martial proceedings, and all witnesses were sworn. As a result of board action, men were recommended either for retention or for discharge. In the former case, a recommendation as to the type of duty the man was capable of performing was to be made.

Discharges for Convenience of the Government

Discharges for convenience of the Government were issued to persons honorably separated for reasons other than physical disability, such as limited service men for whom appropriate assignment was not reasonably available, and

enlisted men graduating from officer candidate schools and who were commissioned in the Army of the United States. Also, some men were discharged for convenience of the Government when they claimed they had not been physically qualified for induction but were erroneously classified and drafted. Others were discharged when their importance to the national health, safety, or interest was considered overriding. The form of discharge issued in such cases was an honorable discharge from the Army of the United States.

Significant Changes to the 1942 Procedure

In April 1943, no man was to be separated from active service if he could meet the then current standards for induction. A man who did not recover sufficiently to meet these standards, regardless of line-of-duty status, was to be given a CDD discharge and transferred, if practicable, to a Veterans' Administration facility, if further treatment was indicated. The administrative procedure for consummating a CDD discharge was amplified, and the major responsibility was given to general hospital commanders. Boards of medical officers were enjoined to regard the interests of both the Government and the individual, with any questions of doubt resolved in favor of the individual. Various changes in the disposition of reports and records were made to include The Adjutant General, The Surgeon General, the Veterans' Administration, and the Selective Service, in order to achieve coordination on the status of each man separated. In June 1943, boards convened by commanding officers to act on section VIII cases were to recommend discharge when the man could not be developed sufficiently to absorb military training or was unfit to associate with enlisted men. Those recommended for retention were to be sent to special training units, as appropriate.

In December 1943, soldiers with service-connected neuropsychiatric disabilities were to be retained for further treatment in an Army hospital if medical judgment indicated that the man could be expected to return to duty in the continental United States within a reasonable time. Individuals with tuberculosis were to be discharged and transferred to the Veterans' Administration, unless they were terminal cases. Those nearing completion of 20 years' service could be transferred to the tuberculosis treatment center at Fitzsimons General Hospital, Denver, Colo. Meanwhile, those with malaria were not to be separated unless the condition was accompanied by permanently incapacitating sequelae, such as marked enlargements of the spleen (splenomegaly) or a form of physical and mental retardation known as cachexia. Repeated relapse, alone, was not to constitute a cause for separation.

On 1 January 1943, enuresis was given as a specific cause for consideration of a disability discharge. It was announced at the time that it was the generally accepted medical and psychiatric opinion that enuresis was not necessarily a

habit, but rather may have been a symptom of some underlying mental or physical condition. Underlying causes of the condition were described as organic disease, psychoneurosis, psychosis, mental deficiency, psychopathic personality, or lack of proper juvenile training. Generally, if the case was studied completely, one of these diagnoses would be established. Consequently, the individual in each case was to undergo a complete physical and mental evaluation by qualified medical officers, and a decision was to be made as to disposition.

When AR 615-360 was republished on 25 May 1944, individuals with enuresis were to be discharged in accordance with section VIII proceedings, rather than certificate of disability for discharge, when the individual's lack of further usefulness had been established. Also, the board of officers convened by the commanding officer under section VIII was to include a member of the Women's Army Corps when a member of that corps was to appear.

On 20 July 1944, section VIII of AR 615-360 was replaced by AR 615-368, which covered undesirable habits or traits of character, and AR 615-369, which covered inaptness, lack of the required degree of adaptability, or enuresis. On 25 October 1944, section X of AR 615-360 was replaced by AR 615-365, which covered limited service not adaptable for military service.

Disability Discharge Rates

The disability discharge rate for the Army fluctuated early in the war more from change in administrative policy than from the influence of combat or other casualties. After a considerable rise in 1941, associated with the induction of the National Guard into Federal service, the disability discharge rate for enlisted men declined in early 1942 to a low point of about 1.3 discharges per 1,000 strength per month. In the fall of 1942, it began to increase rapidly, so that by February 1943, it stood at 2.6, close to its peak for 1941.⁴

When War Department Circular No. 161, 14 July 1943, was released, and the term "limited service" was to be eliminated in any reference to enlisted men, those so classified were to be reexamined. As a result, individuals meeting the then current minimum physical standards for induction were to be retained on active duty. A man not meeting the minimum standards was to be given a CDD discharge unless he was able to perform a useful service.

During June and July 1943, men were being discharged for disability at a rate in excess of 4 per 1,000 enlisted strength per month. This rate rose to 7 per 1,000 in August and to 11 per 1,000 in September. Then, in November, the disability discharge policy was changed and men were to be retained as long

⁴(1) Monthly Progress Report, Army Service Forces, War Department, 31 Apr. 1943, Section 7: Health. (2) Also affecting discharge rates were many other factors, including the number and competence of examiners, time allotted for examinations, quality of examining facilities, and the frequent changes in standards.

as they were useful with physical defects per se a secondary consideration. Disability discharge rates dipped to 4 per 1,000 in December 1943.

The relatively low disability discharge rate achieved in December 1943 prevailed until September 1944, when War Department Circular No. 370 was issued. This contained a slight modification of the policy of "retain the man and find the job that fits his capabilities" to "if a job is *available* that fits his capabilities, retain the man." The effect of this change was to liberalize markedly what had been a fairly strict discharge policy since November 1943. As a result, there was an immediate increase in the disability discharge rate. This was tempered, however, by the release of Changes No. 1 to AR 615-360, republished on 12 September 1944. This change provided that an enlisted man would not be discharged for physical reasons on the grounds that he was incapable of serving in a physically exacting position when he could render adequate service in a reasonably available and less exacting assignment. Failure to meet induction standards was not to be sufficient grounds for discharge if the man was satisfactorily filling an authorized position. When defects were not sufficient to warrant a disability discharge, but prohibited employment in a reasonably available assignment, the man was to be discharged for convenience of the Government. As a result, the total rate of discharge from the Army for all causes was not materially affected, but the disability discharge rate was lowered because many discharges previously given for disability were given for convenience of the Government instead. In January 1945, War Department Circular No. 370 was rescinded, and there was a return to the stricter discharge policy prevailing in August 1944.

During the war, about 1,312,000 enlisted men were separated from the Army for reasons attributable directly or indirectly to physical and mental defects. About 956,000 of these were separated on certificates of disability for discharge. The remainder of some 356,000 men were separated for inaptness, lack of the required degree of adaptability, or for enuresis. By the beginning of 1946, of all enlisted men who had entered the service, approximately 12.8 percent had been separated for physical or mental defects. Disability separations amounted to 9.3 percent, while separations for other physical and mental causes amounted to 3.5 percent.⁵

Table 3 indicates the status of defects for which men were separated from the Army on certificates of disability for discharge between 1942 and 1945. It shows the trend in the number of men separated by cause of separation and the same trend expressed as percentages of the total. The rise and fall of separations, previously mentioned, are clearly indicated.

⁵ Health of the Army. Volume I. Report No. 2. Office of The Surgeon General, War Department. 31 Aug. 1946.

TABLE 3.—*Enlisted men separated from the Army on certificates of disability for discharge for disease, 1942-45*¹

Cause of separation	1942-45		1942		1943		1944		1945	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All disease.....	846,153	100.0	61,283	100.0	343,563	100.0	192,017	100.0	249,290	100.0
Infectious and general.....	105,534	12.5	9,503	15.5	40,242	11.7	22,733	11.8	33,056	13.3
Neuropsychiatric.....	379,486	45.0	26,373	43.0	138,609	40.3	98,293	51.2	116,211	46.7
Eye, ear, nose, and throat.....	58,715	6.9	3,578	5.8	32,621	9.5	9,971	5.2	12,545	5.0
Respiratory.....	50,291	5.9	4,040	6.6	21,184	6.2	11,519	6.0	13,548	5.4
Cardiovascular.....	52,588	6.2	5,171	8.4	25,057	7.3	12,103	6.3	10,257	4.1
Gastrointestinal.....	61,181	7.2	5,803	9.5	20,664	6.0	17,734	9.2	16,980	6.8
Genitourinary.....	15,606	1.8	1,146	1.8	6,825	2.0	3,604	1.9	4,031	1.6
Bones and organs of locomotion.....	108,495	12.8	5,669	9.3	57,619	16.8	15,373	8.0	29,834	12.0
Miscellaneous.....	14,257	1.7			742	0.2	687	0.4	12,828	5.1

¹Based on individual reports of separation received from The Adjutant General. The total is about 1 percent short of the sum published by the Adjutant General's Office.

Source: Health of the Army, Volume I. Report No. 2. Office of The Surgeon General, War Department, 31 Aug. 1946.

In addition to the effects of change in administrative policies on the discharge rates in 1943 was the marked increase in the number of enlisted men who had entered the Army in 1942. About 3,815,000 enlisted men came into the Army in 1942, as compared to 1,341,000 in 1941 and 2,660,000 in 1943. Moreover, the men inducted during 1943 were from the comparatively older age groups from which a larger percentage qualified only for limited service. It was estimated, also, that the more liberal policy announced in War Department Circular No. 161 in August 1943, although short lived, resulted in the discharge of some 55,000 limited service men.

During 1944, there were fewer CDD discharges than in 1943, mainly as a result of the decrease in the number of men entering the Army. The rise in 1945 resulted, primarily, from separations because of trauma, both battle and nonbattle, rather than discharge policy. Trauma first reached a substantial figure in 1944, when it comprised 6.7 percent of all CDD discharges. In 1945, this figure rose to 26.5 percent of the total (table 4).

Psychiatric disorders comprised the greatest bulk of all separations for disease (table 3). About 380,000 enlisted men were separated during 1942-45 because of such disorders. Moreover, psychiatric disorders constituted 45 percent of all CDD discharges granted for disease. Most of these separations were for psychoneuroses and psychoses. The former made up 68 percent of all neuropsychiatric separations, while the latter accounted for 14 percent.

Next in order of magnitude were separations resulting from diseases of the bones and organs of locomotion. These totaled 12.8 percent of all disability discharges for disease. More than one-half of these separations were for musculoskeletal defects. Arthritis was the primary cause of the 12.5 percent of separa-

TABLE 4.—*Enlisted men separated from the Army on certificates of disability for discharge, 1942-45*

Cause of separation	1942-45		1942		1943		1944		1945	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All causes.....	956,232	100.0	61,990	100.0	348,964	100.0	205,901	100.0	339,377	100.0
Disease ¹	846,153	88.5	61,283	98.9	343,563	98.5	192,017	93.3	249,290	73.5
Battle and nonbattle injuries.....	110,079	11.5	707	1.1	5,401	1.5	13,884	6.7	90,087	26.5

¹ Based on individual reports of separation received from The Adjutant General. The total is about 1 percent of the sum published by the Adjutant General's Office.

SOURCE: Health of the Army, Volume I. Report No. 2. Office of The Surgeon General, War Department, 31 Aug. 1946.

tions for infectious and general diseases, while gastric and duodenal ulcers accounted for most of the 7.2 percent of separations for gastrointestinal defects.

The large increase in 1943 over 1942 in the rate of disability discharges for arthritis, eye, ear, feet, respiratory, cardiovascular, and general musculoskeletal defects was directly traceable to War Department Circular No. 161. This was because of the large number of men inducted earlier in the war who were borderline and substandard in these respects. Their induction occurred when emphasis was placed on the acceptance of every man in the classes not otherwise deferred who could be expected to perform military duty satisfactorily.

Until 31 August 1943, about 50 percent of the disability discharges granted to members of the Women's Army Corps were for neuropsychiatric reasons. About 90 percent of these were with a diagnosis of psychoneurosis.⁶ Second in order of importance were discharges for gynecological conditions, which accounted for about 20 percent of the total. A study of discharges by age at the time of discharge indicated a sharp increase with advancing age.

Enlisted Retirements and Veterans' Administration Pensions

The basic Army authority for disability retirement was contained in AR 615-395, "Enlisted Men: Retirement." It was revised and republished on 6 June 1942, superseding the Army regulation published on 16 May 1938. An enlisted man of the Regular Army or of the Philippine Scouts who had served 20 years or more and who had suffered a physical disability in line of duty which permanently incapacitated him for active service was to have been placed on the retired list. Such men were to have been hospitalized for the purpose of being examined by a board of three medical officers. This board was to determine whether or not the man was incapacitated for active service and if so, the cause of the incapacity, and the approximate date when the incapacity originated; it was to determine whether or not the disability leading to his incapaci-

⁶ Monthly Progress Report, Army Service Forces, War Department, 31 Aug. 1943. Section 7: Health.

tation was incurred in line of duty, and whether or not it was permanent. A report of physical examination was to have been rendered and board proceedings were to have been recorded.

If the board recommended retirement, the hospital commander was to forward the proceedings to The Adjutant General for final action by the Secretary of War. Upon War Department approval, orders were to have been issued placing the man on the retired list.

Under provisions of Public Law 140 of the 77th Congress, approved on 30 June 1941, a man placed on the retired list was to be eligible for pension or compensation under laws administered by the Veterans' Administration. If he elected to receive the latter, however, it was required that he waive receipt of retired pay, an allowance to which he was normally entitled from the War Department. To avoid concurrent payment, when an individual waived receipt of retired pay in favor of pension or compensation from the Veterans' Administration, the War Department was to notify the latter when the waiver was received from the enlisted man concerned and to advise them also of the date when retired pay was terminated. The same administrative coordination was effected when a man elected to waive Veterans' Administration pension and compensation in favor of Army retired pay.

An individual did not have to be eligible for retirement to qualify for a veteran's pension, however. Any man honorably discharged who had incurred disability in the line of duty or anyone with a preexisting defect aggravated by military service might qualify. Whether retired or discharged, the individual's entitlement to a pension was a matter of separate application.

Army Regulations No. 615-360, dated 26 November 1942, required that organization commanders and personnel officers give assistance to enlisted men undergoing discharge who wished to prepare an application for pension. Changes were made a number of times during the war to the exact procedures to be followed in helping the men apply for pensions and in filing the applications.

Applications for pension were to be prepared on Veterans' Administration forms supplied by the field directors of the American National Red Cross. Meanwhile, the approved certificate of disability for discharge was to be forwarded to The Adjutant General, and a report of the discharge was to be made to The Surgeon General. Completed pension application forms were to be sent to the Veterans' Administration. In addition to unit commanders and personnel officers, field directors of the American National Red Cross were authorized to assist in the preparation of pension applications, assisting the enlisted man and working in cooperation with the commanding officer.

MISUSE OF MEDICAL CHANNELS FOR DISPOSITION OF PERSONNEL

A problem continuing throughout the war was the tendency of command to abuse medical channels for the disposition of personnel when alternate means

were not otherwise practicable. It required constant alertness on the part of medical officers to prevent abuses in this respect. This had been as true in peace as it was during war and applied to both officers and enlisted men.

An organization commander is primarily interested in a unit which has as few substandard members in its complement as possible. From a commander's point of view, the simplest way of disposing of substandard men during World War II was often through medical channels. In many instances, the proper disposition was an administrative separation rather than one for disability, but, because of command pressure, the latter channel was utilized. There were two disadvantages to this procedure: First, the unnecessary burden placed on medical personnel and facilities at the expense of the primary mission; and second, and more important, the possibility of establishing a status for the individual which ultimately might result in pension rights to which he was not really entitled.

In this process, individuals were often reclassified, evacuated, and even discharged for medical reasons on meager grounds. Medical means were used to dispose of individuals who were merely ineffective and inefficient, and not sick or physically disabled. There was a widespread tendency to attribute ineffectiveness to coincidental medical defects, while other factors influencing effectiveness, such as lack of leadership and individual motivation and attitudes, were not given sufficient consideration. The medical officer, especially one with little military experience, often did not fully appreciate his professional responsibility to the individual and to the Government in this context.

The use of medical channels to discharge persons not wanted in the service later cost the Government millions of dollars.⁷ One such instance arose when the need for officers was at its peak during the war, and many enlisted men were sent to officer candidate schools. Many who had been awarded their bars but who were later considered unsuitable leaders by their superiors were found to have service-connected disabilities of various degrees. Hundreds of these men were discharged for physical disability. Enlisted men were not eligible for disability retirement with less than 20 years' service at that time. These men were given "line-of-duty—yes" evaluations as enlisted men in connection with their disabilities if the disability had been incurred while they were enlisted men, but "line-of-duty—no" evaluations as officers, thus making them ineligible for disability retirement. A claim was later made by one of these men that he should have had a "line-of-duty—yes" both as an officer and as an enlisted man. The man won his case, and the U.S. Comptroller General ruled that all such men should be eligible for benefits as officers if they had been discharged in that manner.

The War Department during the war, in various directives and in Army regulations covering the disposition of personnel, emphasized the importance of making the distinction between those unfit by reason of disability and those

⁷ Based on information furnished by Col. Harold Opsahl, MC.

to be separated because of unfitness for other reasons.⁸ Medical channels were to be used only for the disposition of the sick and the wounded, after maximum benefit had been obtained from treatment, but without sufficient improvement to fit the individual for service.

If an officer had failed to demonstrate his adaptability to his assignment and his psychiatric or physical condition did not warrant placing him before an Army retirement board, prompt measures were to be taken either to reassign him or to effect his reclassification and discharge. It was realized that there would be some marginal cases among the noneffectives, whose disposition would be difficult to determine. It was believed, however, that adequate study would indicate the proper disposition.

OFFICER DISABILITY RETIREMENT

As with enlisted men, an officer's state of health was compared, in some way, with physical standards requirements a number of times while he was being processed for retirement—by examining boards after hospitalization, by disposition boards, by retiring boards, and by review boards. It was not necessary that all these boards act on every retirement case, but some examination plus retirement board action was always necessary. The standards used by the various boards were very similar and usually the same as entrance standards. Late in the war, a special set of retention standards were in the process of being developed, but these were not published until 1953.⁹

On 3 April 1939, Public Law 18 of the 76th Congress became effective granting Reserve component officers the same retirement benefits as accrued to officers of the Regular Army, providing their disability was incurred in line of duty while on active duty.¹⁰ The War Department, shortly after the passage of this act, directed that the same physical standards apply to the Reserve as to the Regular Army, and instructions were issued for more comprehensive physical examinations to be made to protect the Government. The method of separation of Reserve officers who were on active duty and relieved for physical disability, and their entitlement to retirement benefits for disability, were then essentially the same as those for Regular Army officers.¹¹

However, the act of 3 April 1939 had not specified which agency of the Government was to administer the equalized retirement benefits for Reserve officers, so Executive Order No. 8099 was issued on 28 April 1939 to correct this deficiency. The order provided that the Veterans' Administration would be responsible for administering the provisions of the act. The line-of-duty determination, however, was to be made by the Secretary of War or someone

⁸(1) War Department Circular No. 81, 31 Mar. 1945. (2) War Department Circular No. 233, 2 Aug. 1945.

⁹In 1953 as Special Regulations No. 40-120-1, 9 Oct. 1953, and later as Army Regulations No. 40-504, 28 June 1955, and then as Army Regulations No. 40-501, 5 Dec. 1960.

¹⁰Statutory authority for the retirement of Regular Army officers for reasons of mental or physical incapacity had its origin in the act of 3 Aug. 1861 (12 Stat. 289) and was carried over to the revised statutes (par. 5 SPJGA 1943/9514, 14 July 1943; JAG 210.85, 14 March 1932; C.22399, 22 Nov. 1907).

¹¹See footnote 2 (1), (2), and (3), p. 97.

designated by him. Determinations were to be made in the same manner as for personnel of the Regular Army.

Some of the procedures leading to retirement are discussed under "Re-classification of Officers" in chapter IV (p. 86). After the officer had been hospitalized and his ailment diagnosed to determine if it was permanent and of a degree to render him unfit for further military service, he was to appear before a hospital disposition board. If this board recommended retirement, the proceedings were forwarded to the War Department where they were reviewed by officers from the Surgeon General's Office. If these officers recommended retirement and the War Department concurred, orders were issued for the officer in question to appear before an Army retiring board.¹²

The proceedings of the retiring board were sent to the War Department, reviewed by The Surgeon General, and final action taken by The Adjutant General for the Secretary of War, who acted for the President of the United States.

Line-of-duty determinations were to have been initiated by medical disposition boards, but sometimes decisions on line of duty were difficult, especially after so many changes in policy were effected. The War Department utilized Army retiring boards as factfinding boards in cases where the medical disposition board could not come to a satisfactory decision on an officer's fitness for further military service or the line-of-duty status of the incapacity in question. The final decision, however, was to rest with the War Department as to the officer's entitlement to benefits. If the final decision was favorable to the officer, certification was made to the Veterans' Administration, from which agency a Reserve officer received his retirement pay. (Regular Army officers received their retirement pay from the War Department.)

On 15 October 1941, the War Department reaffirmed that line of duty and fitness for active military service for all officer personnel on active duty for periods in excess of 30 days were to be the same for officers of both the Reserve and the Regular Army.¹³ As a result of retiring board hearings, officers physically or mentally disqualified were relieved from active duty on termination of accrued leave and travel time, whether or not they ultimately received retirement benefits. Those found fit for further active service, however, were to be returned to duty.

Due to the large number of officers on active duty and the pressing needs of the war, it was found impracticable to make periodic examinations of officers after they had once been examined and found qualified for active duty. Annual physical examinations of officers of the Regular Army also were discontinued early in the war. The same was true for physical examinations of officers of the Reserve components for promotion. Usually an officer went before an Army retiring board because some disability was found upon his terminal physical examination or during some period of hospitalization.

¹²(1) Army Regulations No. 605-245, 17 June 1941. (2) Army Regulations No. 605-250, 19 Jan. 1924, 1 June 1943, and 28 March 1944.

¹³See footnote 2 (1), p. 97.

Some problems resulted during and after the war from the mechanics of Army retiring board procedure, but these are not within the scope of a discussion of physical standards. These boards operated under provisions of the Revised Statutes and certain legal requirements had to be met for the findings to be valid. The prime responsibility that the board meet legal requirements rested with The Adjutant General, whereas it was customary for the Surgeon General's Office to review Army retiring board decisions and to note the recommendations. The function of the Surgeon General's Office in reviewing the recommendations of these boards was primarily to express an opinion whether or not the cause for retirement could be considered adequate, whether or not the line of duty had been correctly determined, and whether or not general policies outlined by the War Department were being carried out in a uniform manner by all boards.

The Surgeon General's Review

Army retiring boards were made up of both line officers and medical officers, most of whom had little experience in such duties. Medical witnesses before such boards seemed to be obsessed with the idea that any minor deviation from the physical standards which governed appointment should be adequate reason to recommend an individual for retirement.¹⁴ The finding of some residual defect, such as the scarring from an old duodenal ulcer, would in many cases bring an individual before an Army retiring board, although the man might have no residual symptoms and be well able to perform military duty. Aggravation might be found as incident to the service merely because a preexisting defect had again presented symptoms and the individual claimed some trauma in the service. In many cases, claims could not be substantiated by any official record of injury. Many board proceedings were received by the Surgeon General's Office for review that showed a long list of diagnoses as disabilities. Close scrutiny often showed that these diagnoses were those made at the time the individual had been originally hospitalized, and that at the time of appearance before the retiring board the conditions no longer existed, or else had progressed to a degree of improvement that they no longer constituted a reason for retirement.

Typical of the actions taken as a result of review of Army retiring board proceedings in the Surgeon General's Office were those taken during 23 July 1945 through 1 September 1945.¹⁵ At that time, 2,344 Army retiring board cases were reviewed. Of this number, only 49 were for Regular Army officers. Of the 2,295 non-Regulars, 1,870 were cases appearing before the board for the first time, while on 425 the board had been reconvened. All Regular Army

¹⁴ Based on information supplied by Col. William B. Foster, MC (Ret.).

¹⁵ Memorandum, Headquarters, Army Service Forces, for The Surgeon General, 20 July 1945, subject: Officers Ordered Before Army Retiring Boards Who Are Not Retired for Disability, and 1st Indorsement, The Surgeon General, to the Director, MPD, ASF, 19 Sept. 1945. [This memorandum was used by Lt. Col. Hesford in the course of his work on an earlier draft of this volume, but the document has since become unavailable.—C.M.W.]

officers involved were found permanently incapacitated for active service by the board and these decisions were concurred in by The Surgeon General. Of the 2,295 cases involving non-Regular officers, 1,480 were found incapacitated for active service. Of this number, 51 were the result of reconvened retiring boards with which The Surgeon General did not concur. Of the 815 non-Regular Army cases remaining, the retiring boards found that 19 officers were not incapacitated for active service and returned them to general service, and in 41 cases recommended that the officers be placed on temporary limited service for 6 months. On the remaining 755 cases, the following actions were taken:

1. Returned through The Adjutant General to Army retiring boards were 235 cases appearing for the first time. In these cases, The Surgeon General was of the opinion that the officer might well have been found not incapacitated for active service and, instead, placed on temporary limited service for 6 months. This was based on the fact that the disease, injury, or infirmity was improving, and sufficient time had not elapsed to determine the permanent residuals or the question of permanent aggravation by service.

2. The Surgeon General did not concur in 35 cases on which retiring boards had been reconvened. A recommendation was made to The Adjutant General that the officers concerned be found not incapacitated for active service and that they be placed on temporary limited service for 6 months with reexamination and reevaluation at the end of that time.

3. The Surgeon General did not concur with the line-of-duty determination or aggravation findings in 151 cases. These were returned through The Adjutant General to the retiring boards for reconsideration.

4. In 113 cases, The Surgeon General found the evidence submitted to be insufficient to warrant retirement or to find the officer incapacitated for general service. These cases, likewise, were returned to the retiring board, through The Adjutant General, for reconsideration and clarification.

5. Similarly returned to retiring boards were 26 cases for reconsideration and for inclusion of major defects in the findings which had been omitted.

6. There were 84 cases for which the clinical records or X-rays had been requested of The Adjutant General because the diagnosis and line-of-duty determination were questionable.

7. The findings in 46 cases were incomplete or not recorded as called for in AR 605-250, "Commissioned Officers: Army Retiring Boards," so they were returned to retiring boards for correction.

8. Returned to The Adjutant General were 65 cases in which further treatment was indicated, and it was recommended that treatment be completed at the appropriate hospital.

Neuropsychiatric Cases and Psychoneuroses Main Cause for Retirement Action

Neuropsychiatric and psychoneurotic cases presented unusual difficulty. These constituted approximately 40 percent of all officers appearing before

retiring boards. Many of these officers had been returned to the United States from oversea theaters and often after arrival no longer presented any symptoms. The history of such a condition prevented hospitals from returning these individuals to full military duty, with possible reassignment overseas, and if they were returned to duty at all, it was for limited service. Many would refuse a limited service status and the regulations then in force would require their appearance before an Army retiring board. This was especially true of Air Forces personnel, for a limited service classification prevented the individual from flying, and the Air Forces resisted reassignment of individuals considered unfit for full military duty. The result was that many officers were found physically disqualified for further military service by retiring boards, with subsequent certification to the Veterans' Administration for retirement pay.

In the majority of retirements for psychoneuroses, it was not possible to predict whether or not the psychoneurosis would persist after the officer had been retired and returned to civilian life. There was no provision in the retirement law for the reexamination of any of these cases at a later date to determine if recovery had occurred, and even if there had been, it would have presented difficulty. Experience had shown that in handling of such cases, individuals would not admit improvement if such acknowledgment might result in a reduction of monetary or other benefits. Without a doubt, many had so little disability that they were not incapacitated in any way for their usual civilian occupations.

The course of physical disabilities could be predicted with a fair degree of accuracy, but as stated above, the rendering of a prognosis for the psychoneuroses presented more of a problem. Many of these psychoneurotic individuals lost their disabilities immediately after discharge from the service and their return to civilian life; others with medical assistance recovered promptly; and others continued to profess disability. Many of these cases while considered unfit for military service had no handicap for their civilian vocation.

Inequities

The provision at the close of the war for retirement pay and the large number of officers coming up for retirement presented a serious problem. The retirement provisions at the time provided the same compensation for minor incapacities as for major disabilities, and there was no provision for the periodic review of cases to determine permanency of the disability. The Surgeon General had recommended that the amount of retirement pay be graded to conform to the extent of disability estimated for civilian life and that provision be made for reviewing the degree of disability at stated intervals after retirement for the purpose of adjustment of pay where indicated by a changed degree of disability.¹⁶ To correct the situation, a change in the laws effecting retirement

¹⁶ Monthly Progress Report, Army Service Forces, War Department, 31 Dec. 1944, Section 7: Health.

benefits was necessary. Some changes were made but not until 1949, when they were included under U.S.C., title 10, chapter 61, sections 1201-1221, of the 81st Congress. At that time, physical evaluation boards were established, review of cases to determine permanency of disability was instituted, and disabilities were rated by percentages which determined the amount of benefits which would be tax free.

Disability Retirement of Nurses

Beginning on 10 July 1944, both Regular Army and Reserve Corps nurses could be appointed as officers in the Army of the United States, with rights to disability retirement the same as those for other officers.¹⁷ Before that time, although the Army Nurse Corps was a component of the Medical Department, its members were not commissioned officers of the Army, but held relative rank to other officers. Special statutory provisions had covered the retirement of nurses, both Regular Army and Reserve on active duty. An act of 13 May 1926 provided for the retirement of nurses for longevity of service. Statutory authority for the retirement of nurses for physical or mental disability came in an act of 20 June 1930, amended by an act of 17 October 1940.¹⁸ These provided that a nurse could be retired for physical disability if found by a board of medical officers to be disabled in line of duty while performing the duties of a nurse. Board findings were to have been approved or disapproved by the head of the military department concerned.

Disability Retirement Situation at the Close of the War

Much confusion existed during the war period concerning Army retiring board procedures and interpretation of various directives concerning physical reclassification of officers. Such confusion often required that retirement board proceedings be returned a number of times for correction and clarification of the findings. Finally and rather belatedly, War Department Technical Manual 12-245, "Physical Reclassification: Retirement and Retirement Benefits for Officers," was released on 1 October 1945. This manual was useful but failed to serve its full purpose because of the late date on which it was issued. Also, the document was loosely written and subject to varying interpretations, which led to claims against the Government after the war.

During 1942, about 1,350 officers were retired or separated for physical disability. In 1943, the number increased to nearly 4,300, and for 1944, the number was about 9,000. Because on the average some 9 months elapsed between the hospitalization of a battle casualty and the time he was retired or separated for disability, the battle casualties sustained in the invasion of France and the Lowlands had not appeared in sizable numbers by the end of 1944.¹⁹ These

¹⁷(1) War Department Bulletin No. 16, 19 July 1944. (2) Army Regulations No. 40-21 27 Nov. 1944.

¹⁸(1) 44 Stat. 531. (2) 46 Stat. 790. (3) 54 Stat. 1192.

¹⁹ See footnote 16, p. 114.

casualties began making their appearance before retiring boards in substantial numbers in the early part of 1945, and during that year, more than 13,500 officers were separated or retired for physical disability.

The distribution of officer disabilities by cause was, in most respects, similar to that of enlisted men, except that the older age composition of officers was reflected in a higher proportion of disabilities from cardiovascular disease, arthritis, gastric and duodenal ulcer, and tuberculosis.

Secretary of War's Separation Board

On 5 January 1944, the Secretary of War, Mr. Henry L. Stimson, established a separation board, consisting of five general officers, at least three of whom were from the Reserve components. This board acted for the Secretary of War on matters pertaining to commissioned and warrant officers (except general officers) on matters including separations and relief from active duty (other than death, dismissals as a result of court-martial, demobilization, and retirement); retention on active duty in a limited service status after appearance before a retiring board; certain cases involving disability; and benefits under Public Law 101 of the 78th Congress, approved 29 June 1943.

Maj. Gen. William Bryden was president of the board which began functioning on 19 January 1944. The board remained in operation until it was dissolved on 1 February 1946, when its work was transferred to the Secretary of War's Personnel Board. In one report of the board's proceedings rendered on 29 November 1945, which covered the action completed on 40,000 cases, 22,100 of these had been approved for separation while 17,900 were disapproved.

Veterans' Administration Pensions

If it was determined that an officer's disability was insufficient to warrant the finding of incapacity, the officer could still apply to the Veterans' Administration for benefits under laws administered by that agency. In such cases, the Veterans' Administration evaluated the disability, rated it on a fractional basis, and awarded a pension commensurate with the amount of disability found.

As for enlisted men under Public Law 140 of the 77th Congress, approved 30 June 1941, Public Law 314 of the 78th Congress, approved 27 May 1944, provided that an officer receiving retired pay who was eligible to receive pension or compensation under laws administered by the Veterans' Administration could waive his right to receive retired pay from the War Department. The amount of retired pay waived was to be equal to the amount of the pension or compensation received from the Veterans' Administration. Administrative coordination between the Veterans' Administration and the War Department was the same as for enlisted men. Policies and procedures for the filing of pension applications for officers also were the same as those described for enlisted men.

PHYSICAL EVALUATION UPON DEMOBILIZATION

Pilot Separation Centers

In 1944, pilot separation centers were established at Fort McPherson, Ga.; Fort Sam Houston, Tex.; Presidio of Monterey, Calif.; Fort Sheridan, Ill.; and Fort Dix, N.J. In September 1944, Col. Cornelius E. Gorman, MC, represented The Surgeon General on an Army Service Forces team established for the purpose of visiting the pilot installations.²⁰

Although the intent of the team was to confine its study to pilot separation centers, it was apparent from the first that the activities of a personnel center, of which separation centers were a part, were so integrated that it was impossible to study separation centers without studying the personnel center as a unit. At the time the studies were made (September 1944), action was underway to discharge certain enlisted men who did not meet the minimum physical standards for induction. To afford each service command the means of handling this load and to gain experience for separations following the end of the war, the team recommended that a separation center be established in each service command.

It was found that, generally, the number and quality of medical personnel assigned in the pilot centers were inadequate to accomplish a good physical examination, as were the physical plants in which examinations took place. It was noted, also, that Veterans' Administration pension application forms were being filled out by various means—at one place by the American National Red Cross, at other places by the Veterans' Administration representative, and at other places by the records branch. (This was to be done by the Medical Administrative Section of the center, with the assistance of the other agencies.)

It was considered important that medical history interviewers be properly trained and that they be males rather than females, except where female personnel were to be examined. It was noted that in the examination, not enough professional judgment was being exercised and too much reliance was being placed on the letter of the physical standards regulations, which were intended to be used only as guides.

A recommendation resulting from the pilot tests, but never fully adopted, was that medical personnel employed in separation center examinations be assigned directly to the personnel center so that turnover could be kept to the minimum. Above all, it was seen as imperative that particularly well-qualified personnel be assigned to the examining teams. Another important point was that the Medical Administrative Section should operate under the chief medical examiner.

²⁰ Letter, to Director, Planning Division, Army Service Forces, 12 Sept. 1944, subject: Report on Visit to Pilot Separation Centers by Army Service Forces Visiting Team. [This report cited is no longer available for examination. However, it was used by Lt. Col. Hesford in the preparation of an earlier draft of this volume: the correctness of the material based on it is attested by Col. Gorman, who was The Surgeon General's representative on the team.—C.M.W.]

At this early stage, it was found that some men who still required the care of a medical attendant were being sent to separation centers instead of being separated at their home stations. Similarly, individuals arrived at the separation centers before their course of treatment was completed. Such cases were to have been retained at the home station.

It was found that, for the most part, the physical examining facilities for women were inadequate at all of the pilot stations.

This was the planning phase of the separation process. By this means, many problems were corrected long before the surge of outgoing personnel in 1945, when 26 separation centers were in operation, and personnel were separated, although in smaller numbers, from other posts as well. Many more problems were found when large-scale demobilization got underway, but most of these resulted from the large numbers involved, fast turnover of operating personnel, requirements for speed, inadequate facilities, and similar considerations. Only the completion of demobilization ended such problems.

Demobilization

In the traditionally accepted American fashion up to that time, demobilization was rapid after the war's end in August 1945. After peaking in May 1945 at 8,291,366 men, total Army strength dropped to 6,487,053 in October and was down to 4,228,936 in December. By August 1946, the total Army strength had plummeted to 1,731,040 men, and a year later it was 955,698. Thus, from August 1945 to August 1947, over 7 million men had been separated from the Army; 6 million of these in the first year. In February 1941, total strength of the Army was just over 900,000 men, and it took until May 1944 to reach a strength of 7,900,000 men, or over 3 years to induct the 7 million men who were demobilized in 2 years.²¹

Of the 26 separation centers established throughout the country after the Japanese surrender, 5 were equipped to process both male and female personnel. The procedures employed at separation centers ultimately were developed to a high level of efficiency, so that a man's separation from the service usually was accomplished within 48 hours of his arrival at the center. The amount of administrative detail was enormous, but all matters relating to personnel records, finance, travel, claims, and physical examination were processed as rapidly as possible. In order to accomplish this, many center administrative activities operated around the clock.

The procedures for the operation of separation centers were published in War Department Technical Manual 12-222, "Separation Center Operations," on 15 October 1944 and 20 September 1945, respectively. Upon arrival, separatees were given a cursory dental examination to determine if dental treatment was needed and desired by the individual before separation. The incoming records

²¹ Statistical data were taken from the Army Almanac, Department of the Army, Washington: U.S. Government Printing Office, 1950.

of those expressing a desire for such treatment were annotated, and an initial appointment at the dental clinic was arranged.

Medical processing, in addition to an orientation talk, the dental examination, the physical examination, and liaison with the Veterans' Administration, included reporting cases of doubtful or positive serology to the U.S. Public Health Service representative. A report of physical examination establishing fitness for service in the Enlisted Reserve Corps was also prepared. For this purpose, all personnel separated at a separation center on normal discharge were considered physically fit, unless otherwise specified. Officer personnel being separated were authorized to be commissioned in the Officers' Reserve Corps. If qualified, they were sworn in at the separation center. Commanding officers of separation centers were authorized to grant waivers of certain physical defects, as recommended by the center surgeon.

Terminal Physical Examination

War Department Technical Manual 8-255, "Terminal Physical Examination on Separation From Military Service," was issued on 10 September 1945, to establish standards and standardize medical procedures to be followed at separation centers. War Department Technical Manual 12-235, "Discharge and Release From Active Duty," 1 January 1945, dealt with discharge and release from active duty at installations other than separation centers.

The terminal physical examination at separation centers was required to be a thorough and complete physical examination (fig. 14). All physical defects were to be recorded. The record included diagnosis, degree (such as mild, moderate, or severe), and the extent of any incapacitation found. Three days beyond the usual time allotted for separation was authorized to permit study, observation, and special examination of those individuals whose physical and mental status or both otherwise could not be evaluated. If more than 3 days were found necessary to permit proper evaluation and disposition, the man was hospitalized.

Essentially, the terminal physical examination given on separation beginning in 1945 was the same as that prescribed for officers in AR 40-100 (appendix D, p. 249) and AR 40-105 (appendix C, p. 209), while for enlisted men, it was the same as that prescribed in MR 1-9 (appendix B, p. 161). All examining physicians were alerted to the need for detecting signs of psychiatric disorder and to make proper notation of them. A complete psychiatric examination was not required unless indicated.

The examination was given within 72 hours of separation. Many officers, however, had substantial terminal leave accrued, frequently in excess of 90 days. Rather than repeating an examination or having the individual return to a military installation for examination at the end of terminal leave, the terminal physical examination, given at separation centers before beginning terminal leave, was to suffice for final separation. If the officer suffered minor illness or injury while on terminal leave, a report of the case was sent to the separation

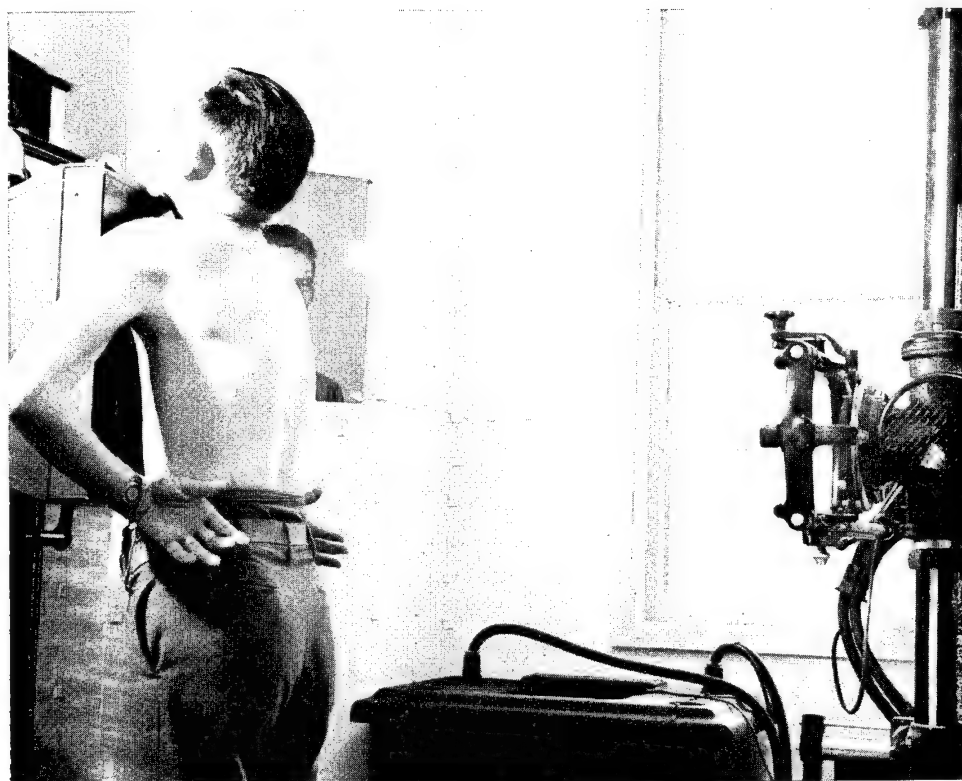


FIGURE 14.—An enlisted man receives his physical examination before being separated at Camp Beale, Calif., 8 November 1944.

center to which the officer was assigned while on terminal leave. If the condition was other than minor, the officer reported to the nearest Army medical treatment facility for a supplemental examination. The report of this examination was sent to the separation center at which the terminal physical examination had been given.

The examination given to female officers and enlisted women was the same as that given for appointment or enlistment.

Separation Center Medical Boards

Medical examining boards were of five types. In addition to the board established for the purpose of accomplishing the terminal physical examination, there was a board to act on certificates of disability for discharge, a disposition board, a retiring board, and a review board.

Physical examination board.—The board established for the purpose of giving the separation physical examination consisted of a chief medical ex-

aminer and such other medical and dental officers, nurses, Medical Department enlisted personnel, and civilian personnel deemed necessary for the efficient functioning of the board. The chief medical examiner was responsible for the proper operation of the board. The number of other personnel was flexible but to be consistent with the requirements for efficient accomplishment of specified professional and clerical duties.

Normally, the board consisted of a chief medical examiner, dentists, a surgeon, a roentgenologist, an eye, ear, nose, and throat specialist, internists (one experienced in tropical disease), a laboratory officer, an orthopedic surgeon, a psychiatrist, a medical officer (and assistants), Medical Administrative Corps officers, and a psychologist.

The enlisted complement normally consisted of noncommissioned officers (for property and supervising enlisted personnel), stenographers, a psychiatric social worker, dental technicians, laboratory technicians, X-ray technicians, medical clerks, typists, messengers, orderlies, and other assistants as necessary.

For the purpose of processing female personnel, a gynecologist, a nurse, and other assistants could be added.

War Department Technical Manual 8-255 furnished guidance on the number of personnel required in relation to the average number of examinations given in a day. For example, if there were an average of 100 examinations a day, 14 officers and 19 enlisted men were the estimated requirement. For 200 examinations a day, this was increased to 20 officers and 30 enlisted men, while the figures for 500 examinations a day were 39 and 60, respectively. Personnel required to supplement existing staffs for the purpose of examining female personnel were, for 30 examinations a day, 1 nurse and 8 enlisted women. For 60 examinations a day, the requirement was 1 gynecologist, 1 nurse, and 13 enlisted women.

Medical review board.—A review board of medical officers was established at each separation center to act on cases in which an individual claimed disability from defects not considered incapacitating in character by the examining physicians or when there was disagreement among the medical officers engaged in the examining process. In claims for disability where the examining physicians and the members of the review board agreed that no disability existed, an officer was separated without reference to a retiring board, and an enlisted man was referred to the board acting on certificates of disability for discharge.

If there was reasonable doubt about the existence of a defect causing disability in an officer, action on the case was to be taken by a retiring board. If it involved an enlisted man, the case was referred to a board for consideration of discharge on certificate of disability. Reports of the proceedings of review boards were prepared in each case and a copy attached to the report of terminal physical examination.

Review boards were appointed by the commanding officer of the separation center and consisted of not fewer than three medical officers. A list of alternates was also designated. The number included sufficient medical officers with special training in the various branches of medicine and surgery to insure that the evaluation of defects in the individuals coming before the board would have the benefit of the best informed opinion.

Certificate of disability for discharge board.—Certificate of disability for discharge boards were appointed to pass on the eligibility of enlisted men discharged on certificates of disability as covered in AR 615-361 "Enlisted Men: Discharge; Medical," 4 November 1944. Normally, the individual was hospitalized only on direction of the physical examination board or the CDD board. If individuals were separated from the service because of disability and had not been hospitalized, the chief medical examiner was held responsible for the transmission of all required records to the Veterans' Administration, in addition to the proper disposition of other required records and reports.

Disposition and retiring boards.—Enlisted men with more than 20 years' service and officers whose cases required action by a disposition board or a retiring board were transferred to general hospitals or other hospitals designated to function as general hospitals for this purpose. From such hospitals, individuals were separated in the manner prescribed in the regulations. In this procedure, however, individuals were first admitted to the local station hospital before transfer to the appropriate hospital facility.

When an officer demanded to appear before a retiring board, even though the medical examining team at the separation center had found no defect, he was sent before the review board for consideration in accordance with their normal purpose and procedures.

Line-of-duty and limited service considerations.—Line-of-duty determinations were made in accordance with existing regulations. The individual's discharge or return to inactive status, however, was not delayed pending receipt of information from other sources. To prevent delay in doubtful cases, and where there was insufficient information for making a line-of-duty determination, the individual's affidavit and other available information were utilized to make a determination. If adequate information could not be developed by these means, the line-of-duty status was recorded as "undetermined" in the report of physical examination, together with the reasons why a determination could not be made.

Boards reviewing the results of examinations were required to make careful evaluations of cases involving officers or enlisted men ordered to a center for separation who were classified for temporary limited service and in which the time period limiting such service had not yet elapsed. In such instances, the review board recommended disposition by separation, if the limiting defect had improved sufficiently, or ordered the individual to a hospital for evaluation and proper disposition.

Physical Classification

Separate physical classification groupings were created into which individuals were segregated as a result of the separation physical examination and evaluation. These consisted of three classes and were as follows:

Class A.—Individuals who conformed to the physical standards prescribed for discharge without further examination or treatment.

Class B.—Individuals whose immediate separation was delayed because special study and treatment or both was indicated before qualifying for class A or class C, in addition to cases which required action by a separate board of review.

Class C.—Individuals with defects requiring action by a disposition board and retiring board or both. Such action was applicable to officers and to enlisted men with over 20 years' service. Similar action was applicable to enlisted men with less than 20 years' service who were to appear before a board processing discharges on certificates of disability.

Men were placed in class A and disposed of in accordance with current directives (separation without further treatment) when they met one of three general requirements: (1) They met the respective standards for appointment, enlistment, or induction, as appropriate; (2) they entered upon extended active duty in a limited service capacity and had been able to perform such service in a satisfactory manner; and (3) they had no mental or physical defects, other than nonincapacitating, clinically nonsignificant defects unlikely to interfere with satisfactory performance of duties in a civilian occupation.

Class B consisted of men who were held for special medical study or treatment in accordance with a prescribed treatment policy. Such men had defects which were considered either temporarily incapacitating or permanently nonprogressive, or they had defects of a progressive character.

Men placed in class B with temporarily incapacitating physical or mental defects included, also, those with a history of tropical disease, venereal disease in an infectious state, or inadequately treated syphilis. Permanent nonprogressive defects were not regarded as incapacitating. Moreover, it was provided that such conditions be more extensive than those qualifying for class A, and sufficient to prohibit a man's immediate discharge or transfer to the Officers' or Enlisted Reserve Corps. With respect to defects qualifying for class B which were progressive in character, the appropriate further study and treatment was determined at the time of evaluation. Upon completion of any study or treatment given in connection with conditions originally qualifying for class B, the individual was evaluated for classification into either class A or class C.

Separation classification C contained individuals whose situation was rather complex and diverse. Placed in class C were individuals who were then classified for limited service, but who were found incapable of performing the specified limited duties because of permanent physical incapacity. Included, also, were those incapable of performing any type of military duty, regardless

of whether serving in a general service or a limited service status. Officers who had entered on active duty in a general service capacity but were later reclassified by board action, other than an Army retiring board, as permanently fit for limited service duties, only, also were placed in separation class C.

Many officers and enlisted men with over 20 years' service previously retired by reason of physical disability were recalled to active duty during the war. At the time of separation after the war, such individuals usually were serving with a temporary appointment in a grade higher than that in which originally retired. In these cases, individuals were placed in class C when there was aggravation of the physical defect for which the individual was previously retired, or when an additional permanently incapacitating defect had been incurred. Such individuals who entered a retired status for reasons other than physical disability, and who were found with a physical defect that was permanently incapacitating for the physical classification in which they were then serving, were placed in separation classification C, also. At the same time, any officer or enlisted man with over 20 years' service who was not capable of performing general service duties because of permanent physical incapacity, even though he was then serving in a general service capacity, was placed in class C and referred to a disposition and retiring board for appropriate action. Enlisted men with less than 20 years' service, on the other hand, who had definite permanent physical or mental defects which were incapacitating were given a discharge for physical disability. This applied when the defects prevented successful performance in a civilian occupation.

In making determinations of incapacity for military service, entrance standards for officers and enlisted men were used as a guide. In making determinations of incapacity to satisfactorily perform in a civilian occupation, examining physicians were directed to rely on medical judgment.

Officers possessing undesirable habits and traits of character were recommended for reclassification under the regulations governing such action, AR 605-230 "Commissioned Officers: Reclassification," dated 4 June 1942. AR 605-230 provided a means for the disposition of officers who were inefficient or otherwise unsuitable in their assignments. This was accomplished by reassigning them to a position that they were capable of handling efficiently, by demoting them to a grade commensurate with their qualifications, or by separating them from commissioned service. Normally, an officer's services had to be rated unsatisfactory before such proceedings were initiated. Action in such cases was taken by a reclassification board formed for this purpose.

Enlisted men possessing undesirable habits and traits of character were disposed of in accordance with AR 615-361 (p. 122).

Treatment Before Separation

Individuals with an acute or infectious disease, or with conditions which were apt to endanger the life or the welfare of the individual or others in his

environment, were not separated from the service until such treatment had been given so as to render the individual's separation safe for himself as well as others, or until some other disposition, such as transfer to the Veterans' Administration, was arranged. Individuals with remediable defects incident to the service or aggravated by the service, if incapacitating or likely to interfere with either military or civilian duties, were given appropriate treatment if the individual so desired. Enlisted personnel who had actually been discharged and officers who had been relieved from active duty and who were no longer on terminal leave were not eligible for treatment in Army hospitals.

If an officer was found with an incapacitating defect while on terminal leave, and required treatment and appearance before a disposition board or both, he was transferred to the local station hospital for proper evaluation, treatment, and disposition. He was treated at the separation center station hospital, or transferred to another hospital for specialized treatment if indicated.

CONCLUSIONS

Personnel selection and elimination policies must be as sound as we can make them, and must be tailored to the situation facing us at that time. While they must be flexible they must not be capricious. Most of these difficulties in World War II were due to constantly changing policies—changes in physical standards and in psychiatric standards. We rejected men for service, only to accept them later. Many were called up and rejected several times with consequent disruption of their lives and then later accepted. Likewise many were separated at one period under the policies in effect, while others with the same or worse conditions were retained in the service at other times under other policies. Divisions which were ready to go overseas were decimated by relaxation of separation standards and filled with replacements probably not as well qualified as those separated. In retrospect, it is clear that policies were changed on the current exigency, frequently without comprehension of the far-reaching effects that would inevitably ensue.²²

All separations from the Army involved the utilization of physical standards. Generally speaking, if an individual left the Army with a disability incurred in the line of duty, or if he had a preexisting defect made worse by military service, he was entitled to some form of compensation—either pension or retirement. Such entitlements involved millions of dollars, therefore emphasizing the importance of the effective administration of sensible physical standards upon induction, the provision of the best medical care during service, and a uniform policy in applying standards upon separation. Many physical standards-related problems developed during the war, but the most costly of these were the fluctuating policies on the utilization of limited service personnel,

²² Speech, Maj. Gen. Silas B. Hays, Surgeon General of the Army, to the students at the Army War College, Carlisle Barracks, Pa., 21 Jan. 1959, subject: "The Interrelation Between Military Medicine and Command."

the failure to establish effective psychiatric standards and treatment for mental defects and problems until late in the war, and the constant vacillation in retirement procedures and line-of-duty policies and physical standards in general.

Demobilizing the Army from a strength of over 8 million to about 900,000 over a period of 2 years after the war ended was an enormous task, and in many ways more difficult than the job of raising an Army of that size. Disability determinations and the need to protect the Government against costly unwarranted claims complicated the task. Planning for demobilization began early in 1943 and was carried on continually throughout the war. When the end of the war was in sight, plans were refined and made more detailed and pilot testing of separation centers carried out.

EPILOG

In an attempt to correct the weaknesses noted during World War II and to avoid similar mistakes in the future, work on physical standards has continued since that time. The Army has published a single regulation, AR 40-501, "Medical Service: Standards of Medical Fitness," 5 December 1960, covering requirements for general service for both officer and enlisted personnel. AR 40-501 includes special physical requirements for service in certain geographical areas and for duties such as airborne, ranger training, and diving. It also specifies standards for limited and total mobilization. Another regulation, AR 611-201, "Personnel Selection and Classification: Manual of Enlisted Military Occupational Specialties," 15 June 1960, describes physical standards requirements for certain enlisted occupational specialties. Refinement of the physical profiling system has continued, but an opportunity to test its actual application on a scale that would demonstrate the extent of its effectiveness has not come to pass. The draft has continued on a limited scale also, permitting the constant advantage of recent experience in induction procedures.

The history of the 1960's attests to the fact that the age of missiles and atomic weapons has not brought an end to manpower as the ultimate weapon. As long as the necessity for manpower in war exists, a system to determine physical fitness—physical standards—will be required.

It is clear, however, from World War II experience, that standards must be applied with flexibility and in context. The size of the Army required in relation to total manpower will always be a limiting factor. So, also, will be the manpower requirements of essential supporting functions, such as industrial production, agriculture, and transportation. There are many essential wartime activities, both in the armed services and in the civilian economy, that may be satisfactorily performed by men physically or emotionally unfit for combat, or by women. There are men fully equipped physically to serve in one climate who would not be effective in another. There are situations, both military and supportive, in which the resilience and vigor of youth are necessary, and others

that may be better filled by men of greater maturity and judgment, even though of less than standard physical qualifications. The problems for advance planning, if we are to be prepared for the next emergency, are problems of classification—matching the man or the woman with the job; and of administration—devising a system that will work smoothly and rapidly under all conditions.

APPENDIX A

MOBILIZATION REGULATIONS }
No. 1-9 }

WAR DEPARTMENT,
WASHINGTON, August 31, 1940

STANDARDS OF PHYSICAL EXAMINATION DURING MOBILIZATION

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*This pamphlet supersedes MR 1-5, December 5, 1932, including C 1, July 29, 1938.

SECTION I

INFORMATION AND INSTRUCTIONS

	Paragraph
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1. Purpose.—*a.* The purpose of these regulations is—

(1) To set forth the standards of physical requirements for men selected for general service in the Army of the United States (class 1-A standards).

(2) To prescribe permissible deviations from the class 1-A standards for special and limited military service (class 1-B standards).

(3) To describe deviations from the above standards which are not acceptable for any class of military service (class 4).

b. These standards are applicable only to individuals who are to be examined for induction or enlistment during periods of mobilization. In time of mobilization the standards set forth in AR 40-105 will continue to govern the selection of candidates for *commission* in the Army, and AR 40-110 will apply to commission in the Air Corps. Likewise AR 40-100 will continue to govern the appointment of Army nurses, warrant officers, and candidates for the United States Military Academy.

2. Publication.—These regulations are published for the information and guidance of medical examiners of the Selective Service Administration as well as for the medical examiners used by the Army.

3. Objective.—The object is to procure men who are physically fit, or who can be made so, for the rigors of general military service or for special and limited military service. *Therefore, examining physicians should consider these standards as a guide to their discretion and not to be construed too strictly or arbitrarily.* The examination will be carried out with the utmost care in order that no individuals who are unfit for service be accepted, only to be discharged within a short time on certificate of disability. All minor defects as well as disqualifying defects will be recorded, in order to protect the Government in the event of future claims for disability compensation. The likelihood of subsequent claims on account of disability should be borne in mind by the examiners in considering the qualifications of registrants with questionable defects. *Whenever a registrant is accepted for unlimited military duty but who, nevertheless, has a venereal disease or other physical condition which requires medical treatment, the nature of the condition and the need for treatment will be clearly stated on the report of physical examination.*

4. Physical classification.—*a. Class 1-A.*—Physically qualified for general active military service. Registrants will be placed in class 1-A if they meet the class 1-A requirements throughout the entire physical examination.

b. Class 1-B.—Physically unfit for general active military service, but fit for special and limited military service. Registrants who fail to qualify for class 1-A and who do not fall below class 1-B in any phase of the examination will be placed in class 1-B unless, because of multiple defects, the medical examiners recommend unqualified rejection and placement in class 4. Men placed in class 1-B will not be accepted unless specific directions to that effect have been issued by the War Department.

c. Class 4.—Physically unfit for any military service. All registrants who do not meet the physical requirements of class 1-A or class 1-B will be placed in class 4.

5. Defects not specifically mentioned in these regulations.—*If any registrant is regarded by the medical examiners as physically unfit for general military service (class 1-A) or for special and limited military service (class 1-B), by reason of physical or mental defects not specifically noted in these regulations as causes for rejection, he will nevertheless be rejected for class 1-A or for class 1-B, as the case may be, and a brief statement of the reasons therefor entered on the report of his physical examination. Insofar as it is practicable, however, the physical classification of registrants will adhere to the specified requirements.*

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GENERAL AND MISCELLANEOUS DEFECTS

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6. Class 1-A.—*a. Acute communicable diseases, provided acceptance of the registrant is temporarily deferred until a final examination shows recovery without disqualifying sequelae. (Venereal disease in communicable stage and without incapacitating complications will be accepted. See par. 65a.)*

b. Malaria, acute, or malaria, chronic, unless severe.

c. Uncinariasis, unless severe.

d. Remediable incapacity due to recent acute illness or injury or to employment or environment in civil life.

7. Class 1-B.—*Temporary incapacity as cited in paragraph 6d, if not easily remediable to a degree compatible with unlimited service, but which is considered acceptable for special or limited service.*

8. Class 4.—*a. Carcinoma or other malignant disease of any organ or part of the body.*

b. Active tuberculosis of whatever degree and whether general or localized.

c. Leprosy and actinomycosis.

d. Late syphilis affecting the cerebrospinal or cardiovascular systems or the viscera.

e. Irremediable metallic poisoning, except argyria.

f. Mycotic infection of the lungs or other internal organs.

g. Acute rheumatic fever or recurrent attacks of rheumatic fever, chronic articular "rheumatism" and chronic arthritis, if occurrence is verified and malingering is excluded.

h. Osteomyelitis.

i. Filariasis and trypanosomiasis.

j. Hodgkin's disease.

k. Uncinariasis, if severe.

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9. Table of standard and minimum acceptable measurements of height, weight, and circumference of chest.

Height (inches)	Standard		Minimum	
	Weight	Chest measurement at expiration	Weight	Chest measurement at expiration
	<i>Pounds</i>	<i>Inches</i>	<i>Pounds</i>	<i>Inches</i>
60.....	116	31 $\frac{1}{4}$	105	28 $\frac{3}{4}$
61.....	119	31 $\frac{1}{2}$	107	29
62.....	122	31 $\frac{3}{4}$	109	29 $\frac{1}{4}$
63.....	125	32	111	29 $\frac{1}{2}$
64.....	128	32 $\frac{1}{4}$	113	29 $\frac{3}{4}$
65.....	132	32 $\frac{1}{2}$	115	30
66.....	136	32 $\frac{3}{4}$	117	30 $\frac{1}{4}$
67.....	140	33	121	30 $\frac{1}{2}$
68.....	144	33 $\frac{1}{4}$	125	30 $\frac{3}{4}$
69.....	148	33 $\frac{1}{2}$	129	31
70.....	152	33 $\frac{3}{4}$	133	31 $\frac{1}{4}$
71.....	156	34	137	31 $\frac{1}{2}$
72.....	160	34 $\frac{1}{4}$	141	31 $\frac{3}{4}$
73.....	164	34 $\frac{1}{2}$	145	32
74.....	168	34 $\frac{3}{4}$	149	32 $\frac{1}{4}$
75.....	172	35	153	32 $\frac{1}{2}$
76.....	176	35 $\frac{1}{4}$	157	32 $\frac{3}{4}$
77.....	180	35 $\frac{1}{2}$	161	33
78.....	184	35 $\frac{3}{4}$	165	33 $\frac{1}{4}$

10. Directions for taking height.—Use a board at least 2 inches wide by 80 inches long, placed vertically, and carefully graduated to $\frac{1}{4}$ inch between 58 inches from the floor and the top end. Obtain the height by placing vertically, in firm contact with the top of the head, against the measuring rod an accurately squared board of about 6 by 6 by 2 inches best permanently attached to graduated board by a long cord. The registrant should stand erect with back to the graduated board, eyes straight to the front.

11. Class 1-A.—*a.* Those who fall within the requirements for height, weight, and chest measurement given in the table (par. 9).

b. Those whose weight is greater than the standards indicated for the height provided the overweight is not so excessive as to interfere with military training.

12. Class 1-B.—Registrants who on examination are found to present conditions not within the accepted measurements for weight and chest circumference given in the table, who are otherwise mentally and physically fit, and who do not fall within class 4, may be accepted for special or limited military service.

13. Class 4.—*a.* Less than 60 inches in height.

b. Less than 105 pounds in weight.

c. A height of more than 78 inches.

d. Overweight which is greatly out of proportion to the height if it interferes with normal physical activity or with proper training.

14. General considerations.—*a.* Registrants of 76 inches or more in height should be studied for the possibility of gigantism or acromegaly.

b. Examining physicians should use discretion and judgment in accepting registrants with slight variations in the ratio of height, weight, and chest measurements indicated in the table. Minimum and maximum height are absolute, but when the weight is disproportionate and is believed to be due to some temporary condition, proper allowance may be

made provided it is the opinion of the examining physician that the variation is correctable with proper food and physical training. But no registrant may be accepted whose weight is less than 105 pounds.

SECTION IV

EYES

	Paragraph
Vision	15
Class 1-A	16
Class 1-B	17
Class 4	18
Visual tests for detection of malingerers	19
Other methods of examination	20

15. Vision.—To determine the acuity of vision, place the person under examination with his back to a window at a distance of 20 feet from the test types. Examine each eye separately, without glasses, covering the other eye with a card (not with the hand). The registrant is directed to read the test types from the top of the chart down as far as he can see, and his acuity of vision is recorded for each eye, with the distance of 20 feet as the numerator of a fraction and the size of the type of the lowest line he can read correctly as the denominator. If he reads the 20-foot type correctly, his vision is normal and recorded 20/20; if he does not read below the 30-foot type, the vision is imperfect and recorded 20/30; if he reads the 15-foot type, the vision is unusually acute and recorded 20/15, etc.

16. Class 1-A.—*a.* Normal vision.

b. 20/100 in each eye without glasses, if correctable with glasses to 20/40 bilateral.

c. Conditions due to iridectomy or other operation upon the eye, if the condition for which the operation was performed has been relieved and the vision is within or above the minimum standard requirements.

d. Slight nystagmus.

e. Slight conjunctivitis.

f. Chronic simple conjunctivitis occurring in regions where trachoma is not prevalent and if easily remediable.

g. Slight adhesion of the lids to the eyeball.

h. Small pterygium.

i. Strabismus which interferes with vision.

j. Strabismus which does not interfere with vision.

k. Color blindness.

7. Exophthalmos if not of such degree as to have led to, or threatened, corneal ulceration, and provided hyperthyroidism is excluded.

17. Class 1-B.—*a.* A minimum vision of 20/400 in each eye without glasses, if correctable with glasses to 20/40 in either eye.

b. Loss of one eye or blindness in one eye not due to progressive organic change, with vision in the other eye of not less than 20/200 correctable to not less than 20/40.

c. Superficial corneal ulcer, provided acceptance is deferred until ulcer is healed without disqualifying impairment of vision.

d. The following conditions, if mild:

(1) Chronic conjunctivitis not trachomatous.

(2) Inversion of eyelids.

(3) Eversion of eyelids.

(4) Ptosis interfering with vision.

(5) Trichiasis.

(6) Epiphora.

(7) Chronic blepharitis.

(8) Extensive pterygium.

- (9) Chronic dacryocystitis.
- (10) Blepharospasm.
- (11) Diplopia due to paralysis of ocular muscles of one eye, if mild.

18. Class 4.—Defects such as the following :

- a.* Vision less than the minimum requirements for special and limited military service.
- b.* Disfiguring cicatrices of eyes.
- c.* Lagophthalmus, if associated with signs of hyperthyroidism.
- d.* Pronounced exophthalmus.
- e.* Chronic keratitis.
- f.* Chronic recurrent inflammatory disease of the globe.
- g.* Deep chronic ulcer of cornea.
- h.* Any active disease of the retina, choroid, or optic nerve.
- i.* Detachment of the retina.
- j.* Marked nystagmus.
- k.* Glaucoma.
- l.* Diplopia due to paralysis of extrinsic ocular muscle, unless mild in degree.
- m.* Abnormal conditions of eyes due to disease of the brain.
- n.* Trachoma.

19. Visual tests for detection of malingerers.—*a.* Malingerers may feign inability to open their eyes, total loss of vision in one or both eyes, or impaired vision in one or both eyes. Occasionally an inflammation in the eyes will be produced by putting sand or other irritating substance under the lids.

b. Malingerers who wish to evade military service by feigning impairment of vision may be divided into two classes, as follows :

- (1) Those who claim total loss of vision in one eye.
- (2) Those who claim partial loss of vision in one or both eyes.

Either group may have a normal acuity of vision or may exaggerate a defect actually present.

c. In testing for malingering the examining physician should bear in mind that detection is more likely to result when the man is allowed to believe that his case is regarded from the first as genuine and that his story is not discredited. There is something indefinable in the bearing of the malingerer which experience alone can detect. He may be self-assertive and overconfident; he may be hesitating or evasive. Careful observation should be made of his conduct and every movement noted. The nature of the man's answer should be taken into account and considered in the light of the kind of reply that is given when a genuine refraction case is being dealt with.

d. The following equipment may be necessary :

- (1) Trial frame, blank, spherical lenses, +16, +3, +0.25, -3, -2, -1, -0.25.
- (2) Two prisms, one 6° and one 10°.
- (3) Ophthalmoscope (electric battery in handle).
- (4) Condensing lens.
- (5) Loupe.
- (6) Red and green letters on glass :
 - (*a*) Letters varying in size.
 - (*b*) Spectacle frame containing red and green glasses.
- (7) Special test cards, one a duplicate, with letters reversed to use with a mirror.
- (8) Special illiterate test cards.
- (9) Mirror large enough to reflect test cards.
- (10) One stereoscope with special cards.
- (11) Retinoscope (electric, with battery in handle).
- (12) Ruler about 1¼ inches wide.
- (13) Three discs of polaroid 36 mm. in diameter and 2 mm. thick.

c. The principle involved in the polaroid test is that light polarized in any given meridian by a polaroid screen is selectively absorbed by an analyzing polaroid screen whose axis is at an angle to the axis of the polarizing screen. The test may be conducted as follows: Three disks of polaroid 36 mm. in diameter and 2 mm. thick are required. They are held in the ordinary trial frame with the handle corresponding to the polarizing axis. One polaroid disk is placed before each eye with the polarizing axis horizontal. The patient is then asked to read the smallest possible line of letters on the test chart with both eyes open. Immediately the third polaroid disk is rotated so that the polarizing axis becomes vertical for the length of time that it takes to read three or four letters. The rotation of the third disk to the vertical position prevents the passage of any light, so that if the reading of the test chart is continued during this time it is very evident that the poor eye is functioning. The disk may be used with correcting spectacle lenses if necessary. Care must be exercised to see that the poor eye is not closed while the polaroid disk before the other eye is at right angles. Also the good eye must be occluded by the opposed polaroid disk for only a short period at a time so that the registrant does not become aware of the momentary elimination of visual acuity in that eye.

20. Other methods of examination.—*a. To verify total loss of vision in one eye.*—

(1) A 6° prism, base downward, is placed before the admittedly sound eye, while the man looks at a distant light or candle. If he sees two candles, binocular vision is proved. The examiner may vary the test by placing the prism before the "blind" eye, either base up or base down.

(2) A prism of 10°, with base outward, is placed before the "blind" eye. If there is any sight in this eye, double vision will be produced, and the eye will be seen to move inward to correct it and fuse the two images.

(3) The alleged "blind" eye is covered. A prism of 10°, with the apex up, is placed before the "seeing" eye in such a position that its edge lies horizontally across the center of the pupil. This produces monocular diplopia. The prism is then moved upward so as to be completely in front of the good eye and at the same time the "blind" eye is uncovered. If diplopia is produced or admitted, there is sight in the "blind" eye.

(4) *Test with colored glasses and letters.*—This consists in directing the individual to read a row of special red and green letters on glass through a special red and green glass. The red letters will be invisible to the eye that has the green glass, and vice versa, but if all the letters are correctly read irrespective of their color there must be sight in the "blind" eye. The proper illumination back of the chart must be observed. This test is not applicable to individuals who are color blind to red and green.

(5) *Test with trial glasses.*—A high-plus glass is placed before the good eye and a low-plus or minus before the "blind" eye. If the distant type is read, the vision in the "blind" eye is good.

(6) *Stereoscope test.*—This may be made with ordinary stereoscope, the printed matter so arranged that certain portions of it are not present before one of the eyes.

(7) *Bar test.*—Interpose a ruler about 1¼ inches wide vertically midway between the two eyes at about 4 to 5 inches' distance; direct the man to read from a printed page with lines at least 4 inches long. If able to read the lines, binocular vision exists.

(8) The action of the pupil must be carefully tested, there usually being no movement to light stimulation when the eye is blind. If the examiner is not satisfied, the following examination should be made:

(a) *Oblique examination.*—A careful examination of the cornea should be made with the aid of a condensing lens and a loupe.

(b) *Ophthalmoscopic examination.*—A searching examination with the ophthalmoscope should be made, together with an estimation of the refractive error. The pupil should be dilated if necessary.

b. To verify partial loss of vision in one or both eyes.—(1) The most common manifestation of malingering takes the form of a statement that one eye is imperfect. Men pleading this disability may be divided into two classes:

(a) Those who pretend to have a visual defect.

(b) Those who are aware they have a visual defect and exaggerate its effect.

(2) No hard-and-fast tests can be prescribed for the detection of these cases. Much depends on the alertness and ingenuity of the examining physician.

(3) The tests with prisms are not applicable here, for there is not pretended blindness in one eye, but simply an alleged diminution of visual acuity.

(4) If a room 30 to 40 feet long can be obtained for testing vision, place the registrant suspected of malingering at 30 to 35 feet from the test chart. Direct him to read the letters and note the result. He should then be brought up to 20 feet from the card and retested. If he reads the same line, he is malingering.

(5) *Mirror test with special cards.*

(a) Test cards are used which are identical, one having letters reversed. The registrant is directed to read the letters on the chart across the room, and then in a mirror beside it, which reflects reverse letters that are placed over his head. The letters seen in the mirror are located double the distance of the direct letters from the man being examined. The malingerer is apt to read in the mirror the line which he read on the first card, showing that his vision is twice as good as he pretends.

(b) In order to obviate the use of test letters in the mirror test, various common objects approximating the size of the 20/40 and 20/30 letters may be used by asking a registrant to differentiate between a dime and a penny, a cigarette and pencil, a pen and pencil, the number of spots on playing cards, or between the different aces, held on either side of his head and reflected in the mirror at 20 feet distance.

(6) *Trial frame test.*—Place a trial frame upon the man's face and put before the sound eye a high convex lens (+16D) and before the "blind" eye a plane or weak lens (0.25) which will not interfere with vision. If letters placed at distance of 20 feet are read, the fraud is at once exposed.

(7) *Oblique examination.*—This is conducted with condensing lens and loupe to determine corneal or lenticular opacities.

(8) *Ophthalmoscopic examination.*

(a) It is probable that the malingerer will resist the ophthalmoscopic examination by frequent winking or rolling of the eyes. In this event it is best to caution the man that a report of his vision must be made, and then to postpone further examination until after the next few registrants have been examined.

(b) Estimate the refractive error with the use of the ophthalmoscope. If no error of marked degree exists and the media and fundi are normal, the relation between the alleged vision and the refractive condition furnishes an important clue. If the error is about +4 or -2, the visual acuity could be about 20/100, but when the defect cannot be accounted for objectively and the vision is brought from 20/100 to 20/50 or 20/30 by means of a low plus or minus glass, the man is malingering.

(9) *Retinoscopy.*—Look for corneal and lenticular opacities and estimate refractive errors.

c. Occupation.—(1) The man's occupation in civil life may have been such that it could not have been followed without more vision than he claims.

(2) In the absence of ocular defects, continuous and persistent blepharospasm, the use of colored glasses, eye shades, or eye bandages should be regarded with suspicion.

d. Diplopia.—Cases of malingering are occasionally met with in which the men complain that they see double. These must be investigated with the application of the ordinary

tests as if they were genuine, and with every precaution taken to guard against a serious nerve lesion being overlooked.

SECTION V

EARS

	Paragraph
Examination for disease.....	21
Determination of auditory acuity.....	22
Class 1-A.....	23
Class 1-B.....	24
Class 4.....	25
Tests for malingering in hearing.....	26

21. Examination for disease.—The external ears and mastoid region will be examined by inspection and, if necessary, the mastoid region by palpation. The external auditory canal and membrana tympani will be examined by reflected light or by a self-illuminating otoscope.

22. Determination of auditory acuity.—Acuity of hearing will be determined by the low conversational voice test and by the audiometer when indicated. To determine the acuity of hearing, place the registrant facing at right angles to the assistant, 20 feet distant, with ear to be tested toward assistant, and direct him to repeat promptly the words spoken by the assistant. If the registrant cannot hear the words at 20 feet, the assistant should approach foot by foot, using the same tone of voice, until the words are repeated correctly. Examine each ear separately, closing the other ear by pressing the tragus firmly against the meatus; the examiner may face the same direction as the registrant and close one of his own ears in the same way as a control. The assistant should speak in a low conversational voice (not a whisper), just plainly audible to the examiner, and should use numerals, names of places, or other words or sentences until the condition of the registrant's hearing is evident. The acuity of hearing should be expressed in a fraction, the numerator of which is the distance in feet at which the words are heard by the normal ear; thus 20/20 indicates a normal hearing, 10/20 partial hearing of a degree indicated by the fraction, that is, the registrant only hears at 10 feet distance the words which a normal ear hears at 20 feet. The duties of the examiner and assistant may be reversed by desire. If any doubt arises as to the correctness of the answer given, the registrant may be blindfolded and a watch be used to determine the distance at which it can be heard, care being taken that the registrant does not know the distance from the ear at which it is being held. The watch if used should be one whose ticking strength has been tested by determining the distance at which it can be heard by a normal ear. The audiometric examination will be conducted according to the method prescribed by the manufacturers of the instrument employed, and the findings as recorded on the prescribed form will be forwarded for file with the examination report.

23. Class 1-A.—*a.* Normal hearing.

b. Hearing in each ear of 10/20 or better.

24. Class 1-B.—*a.* Hearing in one or both ears less than 10/20 but more than 5/20.

b. Loss of one or both external ears, if the registrants have followed a useful vocation in civil life and the deformity is not too greatly disfiguring.

25. Class 4.—Defects such as—

a. Hearing less than the minimum hearing prescribed under class 1-B.

b. Chronic purulent otitis media, with or without mastoiditis.

c. Chronic perforation of membrana tympani.

26. Tests for malingering in hearing.—Individuals who are malingerers in regard to hearing usually claim magnification of slight imperfection on one side with a complaint of past trouble. Exaggeration of defects in hearing extends usually to declarations of total

deafness on one side. The following directions should be observed in examining suspected malingerers:

a. In making these examinations the observer should have a skilled assistant and all communications between them should be in a low whispered voice.

b. The assistant should stand at the back of the suspected malingerer and should, at the direction of the examining physician, obstruct the ears of the suspect as directed, by pressing the tragus firmly into the auditory meatus.

c. The suspected malingerer's eyes should be securely and completely blindfolded.

d. An accurate notation should be made of which ear is deaf as claimed by the registrant. Then a critical examination of the auditory canal, membrana tympani, and for the patency of the eustachian tubes should follow.

e. Then an accurate test of the normal ear should be made. Care should be exercised not to allow the suspect to hear figures or other signs as to the result of examination.

f. If the suspect gives markedly conflicting statements, when the normal ear is tightly plugged, as to the distance at which he hears the voice, it is fair to assume that he is a malingerer.

g. The simplest and most available test for malingering is the use of an ordinary binaural stethoscope. The tubing leading to the earpiece to be applied to the normal ear is occluded by clamping with a hemostat, and the earpieces are placed in the ears of the blindfolded suspect. The examining physician speaks in a soft tone or counts into the bell-shaped chest portion of the stethoscope, and the suspect is told to repeat what he hears. The tubes are removed from the ears, and the assistant is told to stop the normal ear. The same words or numerals are again repeated. The suspect will now claim failure to hear the words or numerals which he had previously heard through the tube with the ear stated to be deaf.

h. Erhard's test is another simple method for malingerers which requires no special apparatus. If the external auditory canal of a normal ear is tightly packed with absorbent cotton, it will still conduct sound waves to a limited degree; a loud-ticking watch even under these circumstances being heard about 1 or 2 meters. The suspect has his ear which is stated to be deaf stopped, and then the test is made with the hearing of the normal ear, the suspect being told to count the ticks of the watch. The suspect's normal hearing ear is then stopped and the testing is made with the supposed deaf ear. Under this test, if he claims failure to hear the watch under 1 meter, he is malingering.

i. The Chiman-Moos test is made with the C2 tuning fork. The vibrating tuning fork is held at equal distances from each ear. The suspect may claim that he hears it better in the normal ear. The vibrating tuning fork is then placed on the vertex of the skull. The suspect hearing it equally well in both ears will at first hesitate and then state he hears it better in the normal ear. In diseases of the conducting apparatus he should hear it better in the diseased ear. If now the external meatus of the normal ear is tightly closed and the vibrating tuning fork is placed upon the vertex of the skull, the individual with the diseased ear will state he hears it better in the normal closed ear, or it may be impossible for him to decide in which ear he perceives the tone better. The suspect, with the normal ear tightly obstructed, will state that he does not perceive the sound of the fork when thus placed on the vertex of the skull.

SECTION VI

MOUTH, NOSE, FAUCES, PHARYNX, TRACHEA, ESOPHAGUS, AND LARYNX

	Paragraph
Class 1-A-----	27
Class 1-B-----	28
Class 4-----	29
Use of diagnostic aids-----	30

27. Class 1-A.—*a.* Normal conditions of the mouth, nose, fauces, pharynx, larynx, trachea, and esophagus.

b. Enlarged tonsils.

c. Adenoids.

d. Small benign tumors of the nasal and buccal mucous membrane.

e. Deviation of the nasal septum or enlarged turbinates which do not seriously interfere with nasal breathing.

f. Acute primary sinusitis provided the acceptance of the registrant is temporarily deferred for reexamination, if after a reasonable time the sinusitis has disappeared.

g. Laryngitis manifested by hoarseness, laryngeal cough, and congestion of the vocal chords, confirmed by laryngoscopy, unless tuberculous or malignant.

h. Alleged stricture of the esophagus which is unattended by evidence of organic disease of the esophagus as shown by a fluoroscopic examination while the registrant is swallowing a barium mixture.

i. Perforation of hard palate, if not associated with a disqualifying disease.

j. Moderate deformity of the structures of the mouth which does not seriously interfere with mastication or speech.

k. Hay fever, unless severe.

28. Class 1-B.—*a.* Deviation of the nasal septum, which markedly interferes with nasal breathing.

b. Aphonia, with attendant conditions, which disqualify for general military service, if they have followed a useful vocation in civil life.

c. Hay fever, if severe.

29. Class 4.—Defects such as—

a. Irremediable deformities of the mouth, throat, and nose which interfere with the mastication of ordinary food, with speech, or with breathing.

b. Destructive syphilitic diseases of the mouth, nose, throat, larynx, or esophagus, if severe in degree.

c. Laryngeal paralysis, due to pressure from aneurysm or tumor.

d. Permanent tracheostomy.

e. Stricture of the esophagus.

f. Permanent gastrostomy.

g. Chronic sinusitis of the accessory sinuses of the nose, unless mild in degree. (The diagnosis should be established upon chronic nasal discharge, presence of large nasal polypi, and other signs and symptoms reinforced by transillumination or X-ray examination or both.)

h. Chronic atrophic rhinitis with offensive odor (ozena).

30. Use of diagnostic aids.—Examining physicians should make use of laryngoscopy, transillumination of the head, and X-ray, when available, to determine more definitely the physical fitness of registrants who have defects involving the upper air passages, head, or esophagus, when such diagnostic aids are indicated.

SECTION VII

DENTAL REQUIREMENTS

Paragraph

Classes 1-A and 1-B-----	31
Class 4-----	32

31. Classes 1-A and 1-B.—*a.* *Class 1-A.*—(1) Normal teeth and gums.

(2) A minimum of 3 serviceable natural masticating teeth above and 3 below opposing and 3 serviceable natural incisors above and 3 below opposing. (Therefore, the minimum requirements consist of a total of 6 masticating teeth and of 6 incisor teeth.) All of these teeth must be so opposed as to serve the purpose of incision and mastication.

(3) *Definitions.*

- (a) The term "masticating teeth" includes molar and bicuspid teeth, and the term "incisors" includes incisor and cuspid teeth.
- (b) A natural tooth which is carious (one with a cavity), which can be restored by filling, is to be considered as a serviceable natural tooth.
- (c) Teeth which have been restored by crowns or dummies attached to bridge-work, if well placed, will be considered as serviceable natural teeth when the history and the appearance of these teeth are such as clearly to warrant such assumption.
- (d) A tooth is not to be considered a serviceable natural tooth when it is involved with excessively deep pyorrhea pockets, or when its root end is involved with a known infection that has or has not an evacuating sinus discharging through the mucous membrane or skin.

b. *Class 1-B.*—Insufficient teeth to qualify for class 1-A, if corrected by suitable dentures.

32. *Class 4.*—*a.* Irremediable disease of the gums of such severity as to interfere seriously with useful vocation in civil life.

b. Serious disease of the jaw which is not easily remediable and which is likely to incapacitate the registrant for satisfactory performance of general or limited military service.

c. Extensive focal infection with multiple periapical abscess, the correction of which would require protracted hospitalization and incapacity.

d. Extensive irremediable caries.

SECTION VIII

SKIN

	Paragraph
Class 1-A-----	33
Class 1-B-----	34
Class 4-----	35

33. *Class 1-A.*—*a.* Normal skin.

b. Acute nonexanthematous and noncommunicable diseases of the skin which ordinarily run a temporary course.

c. Diseases which are trivial in character and which do not interfere with the general health and are not incapacitating. Among these common and usually trivial diseases may be enumerated—

- (1) Acne.
- (2) Anomalies of pigmentation.
- (3) Scars not extensive, disfiguring, nor incapacitating in character.
- (4) Condylomata which are not extensive.
- (5) Staphylococcic and streptococcic skin infections.
- (6) Acute eczemas.
- (7) Naevi which are not greatly disfiguring.
- (8) All forms of pediculosis.
- (9) All forms of ringworm, unless severe and not easily remediable.
- (10) Scabies, unless severe and not easily remediable.
- (11) Mild and not extensive psoriasis.
- (12) Warts.

d. Simple ulcers or other acute defects of the skin which are easily curable.

e. Pilonidal cyst or sinus if unattended with disease of the bone, as shown by X-ray.

f. Unusual skin defects should arouse suspicion of self-inflicted lesions (dermatitis factitia).

34. Class 1-B.—Such defects as chronic diseases of the skin, which disqualify for general military service, if the registrant has successfully followed a useful vocation in civil life.

35. Class 4.—Serious or incapacitating skin disorders such as—

a. Chronic skin diseases or chronic ulcers of the skin which are so severe or so disfiguring as to incapacitate the registrant for the duties of a soldier or so disfiguring as to render the registrant objectionable in common social intercourse.

b. Actinomyces.

c. Dermatitis herpetiformis of long duration.

d. Epidermolysis bullosa.

e. Forms of generalized dermatitis of long duration.

f. Allergic dermatoses if severe and not easily remediable.

g. Mycosis fungoides.

h. Chronic pemphigus.

i. Lupus vulgaris.

j. Syphilitic lesions ulcerative in character showing much destruction of tissue which if healed would be unsightly or so scarring as to incapacitate the registrant for military service.

k. Elephantiasis.

SECTION IX

HEAD

	Paragraph
Class 1-A-----	36
Class 1-B-----	37
Class 4-----	38

36. Class 1-A.—*a.* Normal skull.

b. Moderate deformities of the bones of the skull of the character of depressions, exostoses, etc., and unassociated with evidence of disease of the brain, spinal cord, or peripheral nerves, and which would not prevent the registrant from wearing military headgear.

c. Defects which are apparently temporary in character due to recent injuries. (This includes contusions and other wounds of the scalp and concussion. Registrants with these defects should have the final examination temporarily deferred.)

37. Class 1-B.—Osseous defects due to decompression or trephine of the skull, if asymptomatic and unassociated with bulging at the site of operation.

38. Class 4.—*a.* Deformities of the skull of the nature of depressions, exostoses, etc., of a degree which will prevent the registrants from wearing military headgear.

b. Deformities of the skull of any degree associated with evidences of disease of the brain, spinal cord, or peripheral nerves.

c. Hernia of brain; monstrosity of the head or hydrocephalus.

SECTION X

SPINE, SCAPULAE, AND SACROILIAC JOINTS

	Paragraph
Class 1-A-----	39
Class 1-B-----	40
Class 4-----	41
Use of X-ray-----	42

39. Class 1-A.—*a.* Normal spine and scapulae.

b. Lateral curvature of the spine of 2 inches or less from the normal midline, if the mobility and weight-bearing power are good.

c. Fracture of the coccyx.

d. Prominent scapulae not interfering with wearing of uniform or military equipment.

e. Pilonidal cyst or sinus (this usually presents itself in the region between the coccyx and anus), if unattended with disease of the bone as shown by X-ray.

f. Normal sacro-iliac and lumbo-sacral joints.

g. Complaint of disease of the sacro-iliac and lumbo-sacral joints which is unassociated with objective signs and symptoms at the first examination and which, on reexamination after a reasonable period of time, is again found negative.

40. Class 1-B.—*a.* Lateral deviation of the spine from the normal midline of more than 2 inches and less than 3 inches.

b. Nontuberculous diseases of the spine which are unassociated with such rigidity that the registrant has been incapacitated from following a useful vocation in civil life.

c. Fracture of the spine or pelvic bones which has healed without marked defects and which has not interfered with following a useful vocation in civil life.

d. Disease of the sacroiliac and lumbosacral joints of a degree which disqualifies for general military service, if the registrants have followed a useful vocation in civil life.

41. Class 4.—Defects such as—

a. Tuberculosis, either active or healed, of any portion of the vertebral column.

b. Osteoarthritis, partial or complete, of the spinal column if sufficient in degree to interfere with following a useful vocation in civil life.

c. Healed fractures of the vertebrae or pelvic bones with associated disqualifying rigidity.

d. Lateral deviation of the spine from the normal midline of more than 3 inches. Curvature of the spine (kyphosis or lordosis) of a degree sufficient to interfere with the wearing of a uniform or military equipment, or which has prevented the registrant from following a useful vocation in civil life.

e. Disease of the sacroiliac and lumbosacral joints which is of a chronic type and is obviously associated with pain referred to the lower extremities, muscular spasm, postural deformities, and limitation of motion in the lumbar region of the spine, and if malingerer is definitely excluded.

42. Use of X-ray.—When examining physicians are in doubt concerning the cause and the extent of the diseases of the vertebrae, scapulae, or sacroiliac joints, an X-ray examination should be made.

SECTION XI

EXTREMITIES

	Paragraph
Class 1-A	43
Class 1-B	44
Class 4	45
General considerations	46

43. Class 1-A.—*a.* Normal upper and lower extremities with normal function.

b. Old or recent fractures which have healed spontaneously with no resulting impairment of function.

c. Paralysis of a muscle or group of muscles that does not interfere with function.

d. Benign tumors of bone or defects due to their removal when the condition does not interfere with the function of the extremity or the joint involved.

e. Recent injury of a bone or joint with or without fracture or dislocation which, in the opinion of the examiners, is only temporarily incapacitating. (Registrants with these defects should be given a period of time not less than 6 weeks for recovery before the final examination is made.)

- f.* Web fingers and toes, unless severe in degree.
- g.* Absent left thumb.
- h.* Loss of two fingers of either hand, except a combination of right index and middle fingers.
 - i.* Loss of right index fingers, provided right middle finger is present.
 - j.* Scars and deformities of moderate degree of the hand or hands which do not interfere with normal function.
 - k.* Stiff fingers of a degree not to interfere seriously with function.
 - l.* Pes planus unless accompanied by marked deformity, rigidity, or weakness, or is of such degree as to have interfered with useful vocation in civil life.
 - m.* Hallux valgus unless severe.
 - n.* Clubfoot of slight degree if tarsal, metatarsal, and phalangeal joints are flexible and the condition permits the wearing of a military shoe and, in the opinion of the examiner, will not interfere with the performance of military duty.
 - o.* Slight claw toes not involving obliteration of the transverse arch and which do not interfere with the wearing of a military shoe.
 - p.* Hammer toe which is flexible and which does not interfere with the wearing of a military shoe. (Hammer toe usually involves the second digit and unless it is rigid is not a disqualifying defect.)
 - q.* Absence of one or two of the small toes of one or both feet if the function of the foot is good.
 - r.* Ingrowing toenails.
- 44. Class 1-B.—*a.* Loss of thumb of right hand.
- b.* Loss of three fingers of either hand, including the right index finger.
- c.* Web fingers or toes, if severe in degree.
- d.* Ganglion and other benign tumors of the hand or fingers.
- e.* Moderate deformities of one or both upper extremities which do not and have not interfered with function to a degree to prevent the registrant from following a useful vocation in civil life.
- f.* Internal derangement of the knee joint if not severe enough to have prevented him from following a useful vocation in civil life.
- g.* Abduction and pronation (knock-ankle) when this condition is not associated with rigidity of the tarsal joint or with deformity of the foot. (This defect is remediable with proper foot exercises and with correct shoes.)
- h.* Loss of great toe.
- i.* Loss of dorsal flexion of great toe.
- j.* Hammer toe with rigidity.
- k.* Other defects of the feet which disqualify for general military service but do not prevent the registrant from wearing a military shoe and which have not prevented him from following a useful vocation in civil life.
- l.* Moderate deformities of one or both lower extremities which do not and have not interfered with function to a degree to prevent the registrant from following a useful vocation in civil life.
- m.* Adherent scars of the skin and soft tissues of an extremity.
- n.* Ununited fractures which do not interfere with good function.
- o.* Benign tumors of bone or joint which do not interfere with function.
- p.* Healed disease or injury of wrist or elbow with resulting limitation of motion.
- q.* Other defects which, in the opinion of the examining physician, are disqualifying but remediable, but which have not prevented the registrant from following a useful vocation in civil life.
- 45. Class 4.—Defects such as—
 - a.* Loss of both thumbs.
 - b.* Loss of more than three entire fingers of one hand.

c. Chronic inflammatory disease of long duration of one or more of the large joints, with or without sinuses.

d. Tuberculosis of a bone or joint. (The diagnosis should be based upon the presence of swelling, tenderness, muscular spasm, restriction of joint motion, and the evidence of bone destruction shown by X-ray.)

e. Old ununited fractures which interfere with function or ununited fractures with deformity sufficient to interfere with function.

f. Old unreduced dislocations which have interfered with the registrant following a useful vocation in civil life.

g. Disease of any bone or joint healed with such resulting deformity or rigidity that the function is impaired to a degree that it will interfere with military service.

h. Muscle paralysis or contraction which disturbs function to the degree of interference with military service.

i. Adherent scars of skin or soft tissue to a degree which seriously interferes with function.

j. Varicose veins, if severe in degree, or if associated with edema or ulcer of the skin.

k. Pes planus, if accompanied by marked deformity, rigidity, or weakness, or of such degree as to have interfered with useful vocation in civil life.

l. Obliteration of the transverse arch associated with permanent flexion of the small toes (claw toes).

m. Hallux valgus if severe and associated with marked exostosis or bunion, especially when there are signs of irritation above the joint.

n. Clubfoot if marked in degree or which interferes with the wearing of a military shoe.

o. Diseases of the bone or of the hip, knee, or ankle joint which seriously interfere with function and weight-bearing power.

p. Deformities due to fracture or other injury which seriously interfere with function and weight-bearing power.

q. Sciatica which is apparently intractable and disabling to the degree of interference with the function of walking and weight-bearing power.

r. Amputations of extremities in excess of those already cited.

46. General considerations.—It is important that registrants with defects of the feet which are not remediable by training and which prevent the inducted men from taking proper training should not be accepted for general military service. It is quite as important that defects of the feet which are not disabling should not be considered disqualifying for general military service.

SECTION XII

NECK

Class 1—A.....	Paragraph 47
Class 4.....	48

47. Class 1—A.—*a.* Normal neck.

b. Nonspastic contraction of the muscles of the neck which is not of great degree and will not prevent the wearing of a uniform or military equipment.

c. Simple goiter or benign thyroid tumors unassociated with toxic or pressure symptoms, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.

d. Enlarged lymph glands of the neck which are not a manifestation of systemic disease and which apparently do not interfere with the general health and which are not large enough to interfere with the wearing of a uniform or military equipment.

48. Class 4.—*a.* Exophthalmic goiter. (See sec. XVII.)

b. Thyroid enlargement from any cause associated with toxic symptoms. (See sec. XVII.)

c. Enlargement of the lymph glands of the neck associated with leukemia and Hodgkin's disease.

d. Lympho-sarcoma.

e. Tuberculous glands.

f. Nonspastic contraction of the muscles of the neck or cicatricial scarring which is disfiguring and unsightly or interferes with wearing a uniform or military equipment.

g. Spastic contraction of the muscles of the neck.

h. Simple goiter unassociated with toxic or pressure symptoms, enlarged lymph glands of the neck, benign tumors and cysts of the neck, large benign tumors of the parotid gland, if the enlargement is of such degree as to interfere with wearing a uniform or military equipment.

SECTION XIII

LUNGS AND CHEST WALL

	Paragraph
Class 1-A-----	49
Class 1-B-----	50
Class 4-----	51
General considerations-----	52

49. Class 1-A.—*a.* Normal respiratory system and chest wall.

b. Acute bronchitis, provided acceptance is temporarily deferred until a final examination shows recovery without disqualifying sequelae.

c. Scars of operation for empyema which have been healed for 1 year or longer, when the function of the lung is good.

d. (1) Arrested pulmonary tuberculosis consisting of lesions appearing in X-ray examination as small apical scars, small calcified nodules or localized fibrous strands, in no case exceeding minimal extent as defined in the classification of the National Tuberculosis Association, and when, in addition, in the opinion of the examining physician, this lesion is not likely to be reactivated under conditions of military service.

(2) Minimal pulmonary lesions are defined as slight lesions without demonstrable excavation confined to a small part of one or both lungs. The total extent of the lesions, regardless of distribution, will not exceed the equivalent of the volume of lung tissue which lies above the second chondrosternal junction and the spine of the fourth or body of the fifth thoracic vertebra on one side.

e. Fracture of the rib or ribs, provided acceptance of registrant is temporarily deferred until a final examination shows recovery with or without deformity, and provided the residual deformity, if any, does not interfere with respiratory movements.

f. Benign tumors of the breast or of the chest wall, provided the enlargement does not interfere with the wearing of a uniform or military equipment.

g. Small palpable lymph glands of the axilla which apparently do not interfere with the general health.

50. Class 1-B.—*a.* Deformity of clavicle, ribs, or scapula of a degree disqualifying for general military service but which has not prevented the registrant from successfully following a useful vocation in civil life.

b. Chronic bronchitis, bronchiectasis, or chronic asthma which is mild and which has not prevented the registrant from successfully following a useful vocation in civil life.

51. Class 4.—Disqualifying defects such as—

a. Tuberculosis of lungs or tracheobronchial lymph nodes, except as defined in paragraph 49.

b. Fibrinous or serofibrinous tuberculosis pleuritis, and pleurisy with effusion of unknown origin. (Inasmuch as pleurisy, with or without effusion, is a very frequent mani-

festation of early tuberculosis, examining physicians should examine with the greatest care registrants who have apparently recovered from pleurisy.)

c. Empyema, or unhealed sinuses of the chest wall following operation for empyema.

d. Chronic bronchitis with emphysema except as stated in paragraph 50.

e. Chronic asthma associated with chronic bronchitis and emphysema, except as stated in paragraph 50.

f. Abscess of the lung.

g. Bronchiectasis, if moderate or severe.

h. Actinomycosis.

i. Tuberculosis of the ribs and other parts of the chest wall.

j. Tumor of the breast or of the chest wall of such size and location as to interfere with the wearing of the uniform or military equipment.

k. Tumor of the lung, pleura or mediastinum.

l. Spontaneous pneumothorax.

52. General considerations.—*a.* The chest examination will include the usual methods of physical diagnosis supplemented, whenever indicated, by radiographic and laboratory studies.

b. Examining physicians should be extremely careful to reject registrants with pulmonary tuberculosis, except as defined in paragraph 49, for all military service; and to accept for military service registrants who allege tuberculosis as a ground for exemption or discharge on the basis of insufficient or incorrectly interpreted signs and symptoms.

c. Men who desire to serve their country may conceal, from patriotic motives, symptoms of tuberculosis which they know or suspect to exist. Some tuberculous individuals will seek enlistment with a view to obtaining treatment and a pension. Some soldiers may allege symptoms of tuberculosis with a view to securing discharge. Some registrants may be expected to claim the existence of tuberculosis as a ground for exemption and fortify their claims by certificates of physicians and by roentgenograms. Such certificates and roentgenograms will not be accepted, but examining physicians will satisfy themselves as to the physical qualifications of registrants by their personal examinations. There will be cases in which pulmonary tuberculosis will have been previously diagnosed on the ground of subjective symptoms and of physical signs which are without any pathological significance. It is necessary, therefore, that conclusions of examining physicians will be based only on their own examinations. Statements of the registrant as to symptoms will not be accepted as indication of the existence of tuberculosis unless supported by objective evidence.

d. The attention of examining physicians is particularly invited to the necessity of exercising great conservatism in their interpretation of physical signs over the apices. Interpretation of such signs as indicating active tuberculosis would in many cases do the Government great injustice, leading to the exclusion of men who are fit for service.

e. The following signs may arouse suspicion, but unless X-ray and other study reveal definite evidence of disease they will be disregarded.

(1) Slightly harsh breathing, slightly prolonged expiration over the right apex above the clavicle anteriorly and to the third dorsal vertebra posteriorly; the same signs at the extreme apex, left side.

(2) Same signs at second interspace right anteriorly near sternum (proximity of right main bronchus).

(3) Increased vocal resonance, slightly harsh breathing immediately below center of left clavicle.

(4) Fine crepitations over sternum heard when stethoscope touches the edges of that bone.

(5) Clicks heard during strong respiration or after cough in the vicinity of the sternocostal articulations.

(6) The so-called râles at the apex during the first inspiration which follows a deeper breath than usual or a cough.

(7) Sounds resembling râles at base of lung (marginal sounds), especially marked in right axilla, limited to inspiration.

(8) Similar sounds heard at apex of heart on cough (lingula).

(9) Slightly prolonged expiration at left base posteriorly.

(10) Very slight harshness of respiratory sounds with prolonged expiration in the lower paravertebral regions of both lungs posteriorly.

SECTION XIV

HEART, BLOOD VESSELS, AND CIRCULATION

	Paragraph
History	53
Procedure	54
Class 1-A	55
Class 1-B	56
Class 4	57
Electrocardiogram	58
X-ray	59
General considerations	60

53. History.—Questions may be asked during the course of the examination concerning past history of rheumatic fever, syphilis, and reaction of physical effort which may be helpful in the interpretation of the findings, but reliance should not be placed on the history alone.

54. Procedure.—The procedure following should govern in the physical examination of the heart. Only those findings need be recorded which are indicative of disease or anatomical defect (examples of findings which are usually not indicative of disease are extra-systoles and functional pulmonary systolic murmurs). For the information of the examiners it is suggested that reference be made to the publication of the American Heart Association entitled "The Nomenclature and Criteria for the Diagnosis of Diseases of the Heart."

a. Location and determination of character of apex impulse.

b. Auscultation of the heart sounds over apex, lower sternum, and second and third interspaces to right and left of sternum, noting accentuation of sounds and murmurs, and rate and rhythm, and comparing apex findings with the radial pulse.

c. Inspection of root of neck and upper thorax and percussion of first interspace on each side of manubrium for evidence of aneurysm.

d. Count of radial pulse, observation of its rhythm, and palpation of radial arteries for unusual thickening or high tension.

e. The blood pressure will be determined only in those cases in which it appears indicated.

f. Exercise test (stepping 12 times briskly onto a common chair) will be used in selected cases to bring out significant heart murmurs, but this test in itself is not to be considered a reliable estimate of the functional capacity of the heart. Care will be taken that registrants with heart lesions are not placed in jeopardy by overexercise.

g. If there is doubt as to the presence of cardiovascular disease the registrant should return for detail reexamination.

55. Class 1-A.—*a.* Normal heart. (A heart will be considered normal when the apex impulse is within the left midclavicular line and not below the fifth interspace; when sounds are normal and there are no thrills or important murmurs; when there is no abnormal pulsation or dullness above the base of the heart; when pulse rate is normal and

regular and there is no unusual thickening of the arteries or evidence of high blood pressure.)

b. A pulse rate of 100 or over which is not persistent. (A pulse rate of 100 or over may be temporary and due to excitement or to recent infection, such as pneumonia or local infections about the nose, mouth, and throat, or may be induced by drugs.)

c. A pulse rate of 50 or under which is proved to be the natural pulse rate of the registrant or to be temporary or due to the use of drugs.

d. Sinus irregularity. (This consists in a quickening of the pulse rate during inspiration and a slowing during expiration and is best recognized with the registrant recumbent and breathing deeply.)

e. Elevation of blood pressure from excitement, proved to be temporary.

f. Neurocirculatory asthenia, if mild in degree.

56. Class 1-B.—There are no cardiovascular criteria to warrant initial selection for class 1-B.

57. Class 4.—*a.* Circulatory failure evidenced by definite symptoms such as a combination of breathlessness, cyanosis, and edema.

b. Hypertrophy and dilatation of the heart evidenced by displacement of the apex impulse to the left of the midclavicular line or below the sixth rib, and of a heaving or diffuse character.

c. A persistent heart rate of 100 or over when this is proved to be persistent in the recumbent posture and on observation and reexamination over a sufficient period of time. (See also sec. XXI.)

d. Paroxysmal tachycardia. (See also sec. XXI.)

e. Heart block.

f. Any serious disturbance of rhythm, such as auricular fibrillation.

g. Valvular disease.

h. Congenital heart disease.

i. Persistent blood pressure at rest above 150 mm. systolic, or above 90 diastolic, unless in the opinion of the medical examiner the increased blood pressure is due to psychic reaction and not secondary to renal or other systemic disease.

j. Thrombophlebitis of one or more extremities if there is a persistence of the thrombus or any evidence of obstruction of circulation in the involved vein or veins.

k. Other abnormalities of the peripheral vascular system, including large varicose veins, Raynaud's disease, Buerger's disease (thromboangitis obliterans), erythromelalgia, and arteriosclerosis of the leg vessels. In doubtful cases special tests should be employed.

l. Aneurysm of any vessel.

m. Pericarditis.

n. Acute endocarditis.

o. Angina pectoris clearly due to coronary insufficiency.

p. Coronary thrombosis.

q. Neurocirculatory asthenia (effort syndrome), unless mild.

58. Electrocardiogram.—The electrocardiogram is of great assistance in determining the nature of certain cardiac abnormalities, the most important of which are the various arrhythmias, defects in conduction, and diseases of the coronary arteries. The electrocardiograph may be utilized in cases where such diagnostic aid is especially indicated, but will not be employed as a routine measure.

59. X-ray.—In doubtful cases fluoroscopy is advised to determine the size and shape of heart and great vessels. Such films as may be taken for the study of the lungs of the registrants should also be viewed for cardiovascular defects.

60. General considerations.—*a.* It is incumbent upon examining physicians—

(1) To accept for service men with accidental functional murmurs or other findings which do not indicate disease and do not impair the individual's ability to undergo severe bodily exertion.

(2) To exclude from active service in the Army any registrant affected with disease of the heart or blood vessels which impairs his ability to undergo severe bodily exertion. Although many men with compensated valvular heart disease are able to undergo severe bodily exertion, the question of aggravation in service, especially by activation of rheumatic carditis, is likely to arise and incidentally to create a pension problem. Therefore, all registrants with valvular heart disease are to be regarded as unfit for service and will be placed in class 4.

b. Men who desire to serve their country may from patriotic motives endeavor to conceal a known valvular lesion which has given no symptoms. On the other hand, men drafted for service may allege or feign symptoms to obtain exemption. Registrants may be expected to present physicians' certificates to substantiate the existence of valvular disease. Many of these may be given in good faith because of inadequate knowledge of the significance of certain frequent murmurs. Such certificates will not be accepted, but examining physicians will satisfy themselves by their personal examinations as to the physical qualifications of registrants.

c. It is necessary, therefore, that the conclusions of the examining physician in doubtful cases will be based on objective evidence in the widest sense, including both physical signs, cardiac rhythm, measurement of blood pressure, and the observed effect of effort. Nevertheless, in the presence of questionable signs or symptoms, the history, especially of past rheumatic fever may be a factor in the final decision. No statement, however, will be accepted as proof of the existence of a cardiovascular defect unless supported by objective evidence.

d. Since it is the duty of examining physicians to protect the interests of the Government by preventing men from entering the service whose circulatory systems may be expected to break down under strain, and equally by preventing the exemption or discharge of fit subjects because of unimportant deviations from the normal, it will be necessary for them to exercise care in the interpretation of their findings and to bear in mind constantly the murmurs and other departures from the supposed normal which may occur in perfectly healthy hearts.

SECTION XV

ABDOMINAL ORGANS AND WALL

	Paragraph
Class 1-A-----	61
Class 1-B-----	62
Class 4-----	63
General Considerations-----	64

61. Class 1-A.—*a.* Normal abdominal organs and abdominal wall.

b. Abdominal scars due to surgical operation or accident which show no hernial bulging.

c. Scar pain when found not associated with any disturbance of function of abdominal wall or contained viscera, unless malingering is definitely excluded.

d. Achylia gastrica, unless associated with a disqualifying disease.

e. Complaint of weak stomach, indigestion, dyspepsia, constipation, belching, vomiting, and various other types and degrees of abdominal discomfort which are proven by examination not to be associated with organic disease, by the absence of the usual objective symptoms and signs and by such laboratory tests as may be employed, provided psychiatric examination reveals no disqualification.

f. Blood in stools if proved to be due to slight defects, such as fissures of the anus, small hemorrhoids, or superficial small ulcers of the rectum.

g. Mild enlargement of the liver unassociated with other objective evidence of disease of the liver or other organs.

h. Splenic enlargement of mild degree unassociated with evidence of other disqualifying disease.

i. Small benign tumors of the abdominal wall.

j. Intestinal parasites or their eggs in the stools.

k. Internal and external hemorrhoids if mild in degree.

62. Class 1-B.—Unless the degree of disability is obviously disqualifying—

a. Hernia-inguinal, femoral, umbilical, and postoperative.

b. Large benign tumors of the abdominal wall.

c. Internal hemorrhoids moderately severe, if remediable.

63. Class 4.—Defects such as—

a. Inoperable hernia.

b. Hydatids of the liver.

c. Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures.

d. Obstruction of the bowel due to organic disease.

e. Irremediable sinuses of the abdominal wall communicating with the hollow viscera.

f. Irremediable stricture of the rectum.

g. Multiple fistulae of the anus.

h. Schistosomiasis.

i. Enlargement of the spleen associated with leukemia, Hodgkin's disease, or splenic anemia.

j. Great enlargement of the spleen from any cause.

k. Large internal and external hemorrhoids associated with prolapse of the rectum.

l. Paralysis of the sphincter associated with incontinence of feces.

64. General considerations.—*a.* When necessary to confirm a diagnosis, examining physicians should, when possible, avail themselves of fluoroscopy and roentgenography when examining registrants.

b. When examining physicians are able to command hospital facilities and the necessary diagnostic apparatus, they should, within their discretion, use test meals and chemical and microscopic examination of the stomach contents and stools.

c. Examining physicians should make use of digital rectal examination of defects referable to that region, and, when necessary, proctoscopy should also be utilized.

d. Registrants who are found to have parasites or their eggs in stools should have this condition indicated on report of examination.

e. Moderate impulse produced by cough at the inguinal, femoral, or umbilical rings, or at the site of a scar is not necessarily indicative of hernia.

SECTION XVI

GENITO-URINARY ORGANS AND VENEREAL DISEASES

	Paragraph
Class 1-A-----	65
Class 1-B-----	66
Class 4-----	67
General considerations-----	68

65. Class 1-A.—*a.* Gonorrhea, acute or chronic.

b. Syphilis with remediable manifestations except cerebrospinal, cardiovascular, or visceral syphilis.

c. Chancroids and the resulting infections of the lymph glands of the groin.

d. Bed wetting, if mild in degree.

e. Albuminuria with or without casts which is proved by observation and repeated examination to be temporary in character.

f. Absence of one testicle due to removal or atrophy.

g. Undescended testicle which lies within the abdominal cavity.

h. Acute cystitis which has proved to be of a temporary character by observation and repeated examination over a period not to exceed 6 weeks.

i. Phimosis with or without adhesions of the mucous surfaces, if remediable.

j. Benign warts and other benign growths of the glans penis and of the prepuce.

k. Amputation of the penis if a sufficient amount of the organ remains so as not to interfere with the function of micturition. (Care should be taken to fully examine registrants for possible recurrence of a disqualifying disease for which the amputation was made.)

l. Varicocele of moderate size.

m. Hydrocele of moderate size.

66. Class 1-B.—*a.* Stricture of the urethra, unless severe and irremediable.

b. Benign tumor of the testicles.

c. Cystitis, subacute or chronic, if deemed remediable.

d. Varicocele if large.

e. Hydrocele, if large and considered irremediable to a degree which would qualify for class 1-A, but would permit limited service.

f. Floating kidney. (By floating kidney is meant one which is freely movable.)

g. Undescended testis which lies within the inguinal canal.

h. Removal of one kidney, the remaining one being healthy.

i. Bed wetting if more than mild in degree.

67. Class 4.—*a.* Chronic nephritis. This should be evidenced by the presence in the urine of albumin and casts, with or without blood, over a period of time sufficient to prove the persistence of the urinary findings. Examining physicians should require registrants to void the urine during the period of the examination and in their presence. When albumin and casts are found in the urine, the registrants should be reexamined not less than twice a day on 2 or more separate days. If the urine shows albumin and casts with or without blood, and this condition of the urine is associated with enlargement of the heart, high blood pressure and other evidences of cardiovascular disease, the diagnosis of chronic nephritis may be made immediately. If the presence in the urine of albumin and of casts with or without blood is proved to be inconstant, and if the condition is unassociated with the cardiovascular condition mentioned, decision should lie within the judgment and discretion of the examining physicians.

b. Irremediable stricture of the urethra, unless of such slight degree as to be of no pathological significance.

c. Urinary fistula or incontinence. (See par. 65*d* and 66*i* concerning bed wetting.)

d. Gonorrheal arthritis which is of itself disqualifying.

e. Surgical kidney with or without renal calculus.

f. Irremediable pyelitis.

g. Hydronephrosis or pyonephrosis.

h. Tumors of the kidney or bladder.

i. Acute nephritis if moderately severe and persistent after 1 month's observation.

j. Chronic cystitis associated with calculi or with retention of urine caused by stricture of the urethra or by disease of the central nervous system.

k. Amputation of the penis if the resulting stump is insufficient to permit normal function of micturition.

l. Hermaphroditism.

m. Hypertrophy of the prostate gland of sufficient degree to cause retention of the urine.

n. Epispadias or hypospadias when urine cannot be voided in such a manner as to avoid soiling of clothing or surroundings, or when accompanied by evidence of chronic infection of the genito-urinary tract.

o. Cardiovascular, cerebrospinal, and visceral syphilis.

68. General considerations.—*a.* When it is deemed necessary, examining physician should employ X-ray facilities to verify diagnosis of defects of the genito-urinary organs.

b. Complications and sequelae of gonorrhea will be regarded by examiners as acceptable or as disqualifying, depending upon the degree of seriousness in individual cases, and registrants will be appropriately classified according to the best judgment of the medical examiners.

SECTION XVII

ENDOCRINE AND METABOLIC DISORDERS

	Paragraph
Class 1-A-----	69
Class 1-B-----	70
Class 4-----	71

69. Class 1-A.—*a.* Goiter (enlargement of thyroid gland, diffuse or nodular) if unassociated with toxic or pressure symptoms, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.

b. Froelich's syndrome, if very mild in degree.

c. Hypothyroidism without myxedema, if not severe or resistant to cure.

d. Acromegaly if not severe or associated with symptoms other than the bony changes.

e. Pellagra, beriberi, scurvy, and other nutritional deficiencies, if remediable by correction of diet, and not severe.

f. Glycosuria, if transient or renal in type, provided acceptance is deferred until the possible existence of diabetes mellitus is excluded.

70. Class 1-B.—Froelich's syndrome, if moderate in degree.

71. Class 4.—*a.* Toxic goiter or thyrotoxicosis. (It should be remembered that malingerers may by use of thyroid medication produce many of the symptoms of thyrotoxicosis.)

b. Goiter with definite pressure symptoms or so large in size as to interfere with wearing a uniform or military equipment.

c. Cretinism with imbecility or dwarfism.

d. Myxedema (with clinical manifestations, and diagnosis not based only on low basal metabolic rate).

e. Gigantism or acromegaly if markedly disfiguring or if associated with other symptoms of severe pituitary dysfunction.

f. Froelich's syndrome, if severe.

g. Hyperparathyroidism and hypoparathyroidism, unless mild in degree.

h. Addison's disease.

i. Diabetes mellitus and diabetes insipidus. If sugar is found in the urine, further specimens should be voided in the presence of the physician or authorized assistant, and on more than one occasion to avoid the substitution of diabetic urine or the voiding of diabetic or glucose containing urine previously introduced into the bladder by catheter. In doubtful cases the blood sugar should be determined. Before diabetes insipidus is diagnosed, malingering (by drinking large quantity of water) should be excluded.

j. Avitaminoses (including spruce, beriberi, pellagra, and scurvy) which are severe or not readily remediable, or in which permanent pathological changes have been established.

k. Gout.

l. Simmond's disease.

m. Cushing's syndrome.

SECTION XVIII

DISEASES OF THE BLOOD AND BLOOD-FORMING TISSUES

	Paragraph
Class 1-A-----	72
Class 1-B-----	73
Class 4-----	74

72. Class 1-A.—*a.* Secondary anemia, due to hemorrhoids or any other remediable cause.

b. Purpura if symptomatic of a remediable condition.

c. Sick cell anemia, if not severe.

d. Malaria, acute or chronic, unless severe and irremediable. (See also par. 6*b*).

73. Class 1-B.—Primary pernicious anemia in the absence of posterolateral sclerosis, if responsive to treatment and not severe.

74. Class 4.—*a.* Hemophilia.

b. Thrombocytopenic purpura.

c. Primary pernicious anemia if severe, not responsive to treatment or with neurological complications.

d. Aplastic anemia.

e. Hemolytic ictero-anemia (hemolytic jaundice).

f. Splenic anemia.

g. Polycythemia vera.

h. Leukemia, acute or chronic, of any type.

SECTION XIX

MENTAL AND NERVOUS DISORDERS

	Paragraph
Class 1-A-----	75
Class 1-B-----	76
Class 4-----	77
Diagnostic criteria-----	78
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75. Class 1-A.—*a.* A normal nervous system.

b. Registrants who appear to have normal understanding, whose speech can be understood, who have no definite signs of organic disease of the brain, spinal cord, or peripheral nerves, and who are otherwise mentally and physically fit.

c. Muscular tremors of moderate degree, unless malingering is definitely excluded.

76. Class 1-B.—*a.* Stuttering and stammering of a degree disqualifying for general military service but which has not prevented registrants from successfully following a useful vocation in civil life.

b. Tremors of such marked degree that they disqualify for general military service but have not prevented the registrants from following a useful vocation in civil life.

77. Class 4.—Any serious mental or neurological disorder such as—

a. Insanity.

b. Epilepsy.

c. Post-encephalitic syndrome.

d. Imbecility.

e. Drug addiction, including the habitual use of opium and its derivatives and cocaine.

f. Chronic alcoholism.

g. Stammering to such a degree that the registrant is unable to express himself clearly or to repeat commands.

h. Psychoneuroses and constitutional psychopathic states providing the diagnosis is clearly established and in the opinion of the medical examiner precludes the successful performance of military duty.

i. Chronic essential chorea.

j. Syphilis of central nervous system.

k. Post-traumatic cerebral syndrome.

l. Multiple sclerosis.

m. Paraplegia or hemiplegia.

n. Syringomyelia.

o. Muscular atrophies and dystrophies which are obviously disqualifying.

p. Hysterical paralysis.

q. Neuritis or neuralgia which is not temporary in character and which has progressed to such a degree as to prevent the registrants from following a useful vocation in civil life.

r. Brain tumors.

s. Cerebral arteriosclerosis.

t. Sexual perversion.

78. Diagnostic criteria.—In arriving at decisions concerning nervous or mental defects, the following criteria may be of assistance :

a. Insanity.—All registrants should be considered insane who are committed, or who have been committed, to a licensed public institution for the care of the insane. The examining physicians may require proof in the form of verified records of commitment by the proper State authorities to verify the statements of the registrants.

(1) *Dementia praecox.*—Look for indifference, apathy, withdrawal from environment, ideas of reference and persecution, feelings of the mind being tampered with, or thought being controlled by hypnotic spiritualistic, or other mysterious agencies, hallucinations of hearing, bodily hallucinations, frequently of electrical or sexual character; meaningless smiles; in general, inappropriate emotional reactions and lack of connectedness in conversation. There may be sudden emotional or motor outbursts. The history of family life and of school, vocational, and personal career will usually show erratic and more or less irrational conduct.

(2) *Manic-depressive insanity.*—Look for mild depression, with or without feeling of inadequacy, or mild manic states with exhilaration, talkativeness, and overactivity.

(3) *Parcisis.*—The diagnosis of paresis may be made when at the examination of the registrant a majority of the following signs and symptoms are demonstrated: Argyll-Robertson pupil, facial tremor, speech defect in test phrases and in the slurring and distortion of words in conversation; writing defects, consisting of omissions and the distortion of words; apathetic or depressed or euphoric mood. These registrants may show memory loss or discrepancies in relating facts of life; the knee jerks may be plus, minus, or normal.

b. Epilepsy.—The registrant will not be considered an epileptic unless the claim is substantiated by characteristic scars on the tongue, face, or head, or if the examining physician is in doubt, by properly certified proof.

c. Imbecility.—A registrant will be declared an imbecile who has been so defective in mind from birth or early age as to be incapable of earning a livelihood but at the same time is able to guard himself against common physical danger.

d. Chronic alcoholism.—(1) A registrant will be declared a sufferer from chronic alcoholism when he presents a majority of the following symptoms and signs: Suffused eyes; prominent superficial blood vessels of nose and cheek; flabby, bloated face; red or pale purplish discoloration of mucous membrane of the pharynx and soft palate; muscular tremor of the protruded tongue and extended fingers; tremulous handwriting.

(2) The history of evidence presented that the registrant has been frequently and grossly intoxicated is not of itself sufficient proof for the diagnosis of chronic alcoholism.

c. Tabes.—The diagnosis of this disease should be made when, at the examination of the registrant, several of the following signs and symptoms are present: Argyll-Robertson pupil; absent knee jerks; positive Romberg, ataxic gait (especially when the eyes are closed); hypotonia; and anesthetic areas of the skin. The history of tabes is usually that of slow progression, of failing sexual power, and pains in the legs or back which are often described as rheumatism.

f. Cerebrospinal syphilis.—The prominent diagnostic signs and symptoms are headaches, varying deep and superficial reflexes, pupillary changes, ptosis, ocular palsies, facial weakness; the mental state may be normal, dull, or apathetic. Comparative motor weakness may involve one side of the body or one extremity.

g. Multiple sclerosis.—The diagnosis of this disease rests upon the following signs and symptoms: Intention tremor, nystagmus, absent abdominal reflexes, increased tendon reflexes, and scanning speech; in cases of this kind the history obtained is not characteristic, but sometimes there may be a history of urinary disturbances.

h. Paraplegia.—The diagnosis of paraplegia from whatever cause will rest upon weakness of the lower extremities, associated with loss of or increased knee jerks, Babinski reflex, or disturbance of the sphincters of the rectum and bladder, with or without girdle sensations. Sensory disturbance of the skin may or may not be present. Muscle sensibility may be diminished.

i. Syringomyelia.—Syringomyelia is usually evidenced by more or less loss of power and atrophy of groups of muscles of one or more extremities; disturbance of the sensations of the skin, more especially in the form of analgesias, and diminution of the temperature sense; if in the upper dorsal cord, often associated with stooped shoulder posture; if in the lower dorsal, with weakness in one or both lower extremities.

j. Muscular atrophies and dystrophies.—The signs and symptoms of muscular atrophies and dystrophies are: Atrophies of the small muscles of the hand and of the muscle groups of the shoulder; fibrillary twitching. The history of these defects rarely furnishes reliable data, although it will usually be found that the registrant has shown evidences of awkwardness. There is never a history of pain in the affected muscles.

k. Multiple neuritis.—The chief manifestations are more or less pain in the course of the affected nerves, with tenderness over the trunks of the nerves and of the muscles supplied by them; lessened muscular power of varying degrees; more or less atrophy of muscles, with or without contraction, and evidences of trophic changes of the skin. The reflexes, deep and superficial, may be diminished or absent; the sphincters are not involved.

79. Sequelae of organic neurological disease.—Certain aftereffects of organic nervous disease need not be causes for rejection, provided—

a. That the disease is no longer active and is not likely to recur.

b. That the effect left by it does not prevent a satisfactory fulfillment of military duties. Examples of such conditions are paralysis of a few unimportant muscles following poliomyelitis, slight unilateral hypertonicity as a result of an infantile hemiplegia in a man now robust, and various traumatic conditions.

SECTION XX

PURPOSELY CAUSED PHYSICAL DEFECTS

Report of apparently purposely caused defects..... Paragraph 80

80. Report of apparently purposely caused defects.—Whenever it shall appear to an examining physician that a registrant is suffering from selfinflicted or purposely caused physical defects which, under the standards of physical examination prescribed herein, would render him disqualified for military service of any kind, a full statement of the facts and of the condition of the registrant and of the examining physician's recommendation

will be prepared and submitted to the Director of Selective Service or other designated authority for a waiver of the physical defects, if recommended, so that the registrant may be compelled to render military service.

SECTION XXI

NOTES ON MALINGERING

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81. Types of malingerers.—Malingers may be divided into three general groups.

a. Real malingerers with nothing the matter with them, who injure themselves, or make allegations respecting diseases or such condition as drug taking, or who simulate disease with full consciousness and responsibility—all for the purpose of evading military service. Many of these will have been coached.

b. Psychoneurotics who are natural complainers and try to get out of every disagreeable thing in life; perhaps only partially conscious of the nature of the seriousness of what they do and only partly responsible. In many the motives are not persistent and many can be made into good soldiers.

c. Confirmed psychoneurotics with long history of nervous break-downs and illnesses who behave like group *a* above but more persistently and from whom not much can be expected in the way of reconstruction.

82. Feigned medical diseases.—*a.* The detection and management of malingerers simulating medical diseases depend upon the absence of positive findings in an individual who presents the general characteristics of the malingerer. There is a special need for the physical examination to be thorough in this group. Some of the cardiac cases at first regarded as malingerers may later be found to have mitral stenosis or bacterial endocarditis. Similarly, proper tests may show the existence of peptic ulcers in those suspected of feigning digestive abnormalities. The estimation of the reality of rheumatic pains is always a difficult matter.

b. Tachycardia and thyrotoxicosis may be temporarily induced by ingestion of drugs, such as thyroid extract. Egg albumin or sugar may be added to urine. Undiluted canned milk may be made to simulate urethral discharge. Cantharides may be taken to cause albuminuria. Digitalis and strophanthus may be taken to cause abnormal heart findings. The skin may be irritated by various substances. Cathartics may be taken to bring about purging or to stimulate a chronic diarrhea. An appearance of hemoptysis may be produced by adding blood, either human or that of animals, to the sputa. Sometimes merely coloring matter is added. Those who can vomit voluntarily what they swallow use the same means to create the appearance of hematemesis. Similarly, coloring matter may be added to the stools. Mechanical and chemical irritants are made use of to cause inflammation about practically all the body orifices. Jaundice may be simulated by taking picric acid. Crutches, spectacles, trusses, strappings, etc., are made use of to create the appearance of disability. Artificial jaundice is recognized by demonstration of picric acid in the urine.

83. Feigned surgical conditions.—Under this are included old scars and injuries of the bones, fractures, and orthopedic conditions. Men may have teeth extracted in effort to evade military service. Others may shoot or cut off their fingers or toes, practically always on the right side, to disqualify themselves for service. Some may put their hands under

cars for this purpose. Retention of urine may be simulated. Substances may be injected under the skin to create abscesses. Crutches, braces, strappings, or trusses may be used to give the appearance of disability. Wounds are rarely self-inflicted when witnesses are present; consequently it is almost impossible to be certain of malingering in some cases.

84. Nervous and mental feigned illness.—*a. Insanity.*—Rarely feigned by registrants and then of an extremely silly, foolish type. In case of doubt, hospital observation is necessary, with verified past records. Mental defects are frequently feigned, especially by illiterates. Organic diseases of the central nervous system cannot be simulated.

b. Pain and hyperesthesia.—The most frequent of all complaints. History inconsistent, ordinary traces of suffering absent. Absence of other symptoms usually accompanies types of pain complained of. Absence of objective evidence of localized pains. Note behavior when the registrant believes himself unobserved.

c. Anesthesia.—Complaint of anesthesia itself creates a suspicion of malingering as most patients with anesthesia are ignorant of it.

d. Epilepsy.—Men who have sustained head injury are very apt to claim fits. These complaints may be in reference to grand mal or petit mal. Petit mal attacks are spoken of as fainting attacks. In grand mal attacks there is loss of pupil response to light, knee jerks are lost, and the Babinski reflex may be present.

e. Hysteria.—Not feigned in itself, but its existence creates confusion as to malingering. The question to be decided is whether the registrant is too seriously affected with the neurosis to be useful as a soldier. (See par. 77*h*.)

f. Stiff back.—Stiff back is a frequent symptom of hysteria in mobilization among selected men. In cases of this kind, organic diseases of the vertebrae can and should be excluded, if necessary, by X-ray.

85. Simulated defects of vision.—See section IV.

86. Simulated defects of hearing.—See section V.

87. Bed wetting.—Enuresis, either real or simulated, may be a frequent complaint among registrants for military service, but it is not a cause for unconditional rejection. Bed wetters may be placed in class 1-A or 1-B depending upon the apparent significance or severity of the disorder.

88. General considerations.—*a.* The surest means of detecting malingering is a thorough understanding by the examining physician of the types of people who actually do it, and the way they behave. It is only in the feigned diseases of the eye and ear that special tests are required. Observation in hospital is necessary in difficult cases. The vast bulk of malingerers are those who exaggerate some actual defect, and the problem for the examining physician is to decide whether the defect complained of is sufficient cause for rejection for service. Persons of intelligence and education have more difficulty in deceiving, as they are bound to express themselves freely. If they are reticent in these matters they arouse suspicion by their reticence. Those who talk freely may be counted on to say things at variance with the existence of the disease of which they complain.

b. Whenever it shall appear to an examining physician that a registrant is endeavoring to escape service by malingering, if otherwise mentally and physically fit, he will be accepted. A full statement of the facts will be prepared and forwarded to the Director of Selective Service.

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[A.G. 381 (8-20-40)]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

S. ADAMS,
Major General,
The Adjutant General.

APPENDIX B

MOBILIZATION REGULATIONS }
No. 1-9 }

WAR DEPARTMENT,
WASHINGTON 25, D.C., 19 April 1944.

STANDARDS OF PHYSICAL EXAMINATION DURING MOBILIZATION

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INFORMATION AND INSTRUCTIONS

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* This pamphlet supersedes MR 1-9, 15 October 1942, including C 1, 22 January 1943; C 2, 23 February 1943; and section I, Circular No. 137, War Department, 1943.

1. Purpose.—a. The purpose of these regulations is to—

(1) Set forth the standards of physical requirements for men procured for general military service.

(2) Prescribe permissible deviations from the general service standards for limited military service.

(3) Describe deviations from the above standards which are not acceptable for any class of military service.

b. So far as it applies to enlisted men AR 40-105 is superseded by these regulations. These regulations will apply to men in the following categories:

(1) Men enlisted or reenlisted in the Regular Army.

(2) Men for enlistment or reenlistment in the Regular Army Reserve, Enlisted Reserve Corps, and Reservists on call to active service if they have been in the inactive Reserve longer than 90 days.

(3) Men enlisted or reenlisted in the National Guard while in Federal Service.

(4) Enlisted men of the National Guard on induction into Federal Service.

(5) Men enlisted in the Army of the United States.

(6) Men inducted into the Army under the provisions of the Selective Training and Service Act of 1940, as amended.

2. Publication.—*a.* These regulations are published for the information and guidance of all medical examiners who may be used by the Army.

b. Medical examiners should read every section of these regulations in order that they may have a broad knowledge concerning physical standards.

3. Objective.—The objective is to procure men who are physically fit for the rigors of general military service or for limited military service. Therefore, examining physicians will consider these standards as a guide to their discretion and not construe them too strictly or arbitrarily. The examination will be carried out with the utmost care in order that no individuals who are unfit for service will be accepted, only to be discharged within a short time on certificate of disability. All minor defects as well as disqualifying defects will be recorded in order to protect the Government in the event of future claims for disability compensation. The likelihood of subsequent claims on account of disability should be borne in mind by the examiners in considering the qualifications of registrants with questionable defects. Whenever a registrant is accepted for military duty but who, nevertheless, has a disease or other physical condition which although not disqualifying requires medical treatment, the nature of the condition and the need for treatment will be clearly stated on the report of physical examination.

4. Physical classification.—*a. General service.*—Physically qualified for general military service. Registrants will be recommended for assignment for general service if they meet the requirements therefor throughout the entire physical examination. In those borderline cases, where a question is raised as to whether an individual should be classified for general or limited service, preference will be given to his initial classification for general service if the chief medical examiner has reason to believe the man can perform general military service duty.

b. Limited service.—Physically unfit for general military service, but qualified for limited military service. Individuals who fail to qualify for general service, and who do not fall below limited service requirements in any phase of the examination will be recommended for assignment to limited service unless, because of multiple defects, the medical examiners recommend unqualified rejection as nonacceptable.

c. Nonacceptable.

(1) Physically unfit for any military service. All individuals who do not meet the physical requirements of general service or limited service will be recommended as nonacceptable.

(2) Care will be taken that all defects found will be recorded fully and accurately on the report of physical examination. The defects will be listed in the summary of the physical examination report in the order of their importance. The irremediable, disqualifying, permanent defect will be listed as number one and

the others in the order of their importance. The major disqualifying defect may be physical or mental.

(3) Any individual recommended as nonacceptable will not be accepted unless specific directions to that effect have been issued by the War Department.

5. Defects not specifically mentioned in these regulations and hospitalization.—*a.* If any individual is regarded by the medical examiners as physically unfit for military service by reason of physical or mental defects not specifically noted in these regulations, he will nevertheless be recommended as unsuitable for general service or for limited service, as the case may be. A brief statement of the reasons for the rejection will be entered on the report of physical examination. So far as practicable, however, the physical classification of individuals will conform to the specified requirements.

b. Hospitalization for a period not to exceed 3 days for men whose physical fitness for military service cannot be determined without hospital study is authorized. Military or other Government hospitals will be used for this purpose when practicable. When military or other Government hospitals are not available the use of civilian hospitals is authorized. *Individuals will not be hospitalized when their fitness for military service can be determined otherwise.*

c. All previous instructions in connection with physical standards which are in conflict with these regulations are rescinded.

SECTION II

GENERAL AND MISCELLANEOUS DEFECTS

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6. General service.—*a.* Individuals with acute pathological conditions, including acute communicable diseases except venereal diseases, from which in the natural course of the disease recovery occurs without sequelae, will be deferred until a final examination shows recovery has occurred without disqualifying sequelae.

b. Malaria, acute, or malaria, chronic, if mild.

c. Uncinariasis, if mild.

d. Remediable incapacity due to recent acute illness, surgical operations, injury, employment or environment in civil life, provided acceptance is deferred until recovery is complete. Following any major surgical operation an individual will be deferred for a sufficient period of time to insure complete recovery without sequelae. The minimum period of deferment following a major surgical procedure will be 3 months. The actual period of deferment longer than 3 months will depend upon the condition for which operated and upon the discretion of the medical examiners.

7. Limited service.—There are no general or miscellaneous defects to warrant initial selection for limited service which are not covered elsewhere in these regulations.

8. Nonacceptable.—*a.* Carcinoma or other malignant tumor or disease of any organ or part of the body.

b. Active tuberculosis of any degree.

c. Leprosy or actinomycosis.

d. Late syphilis affecting the cerebrospinal or cardiovascular system or the viscera.

e. Chronic metallic poisoning, except argyria.

f. Mycotic infection of the lungs or other internal organs.

g. Acute rheumatic fever, or *verified* history of single or recurrent attacks of rheumatic fever within the previous 2 years.

h. Osteoarthritis or rheumatoid arthritis.

i. Active osteomyelitis of any bone or a substantiated history of osteomyelitis of any of the long bones of the extremities at any time.

j. Filariasis, trypanosomiasis, amoebiasis or schistosomiasis.

k. Hodgkin's disease.

l. Uncinariasis, if more than mild.

m. Malaria, chronic, if more than mild.

n. Splenectomy for any cause, other than trauma or congenital hemolytic icterus.

o. Leukemia.

SECTION III

HEIGHT, WEIGHT, AND CHEST MEASUREMENTS

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9. Table of standard and minimum acceptable measurements of height, weight, and circumference of chest.

Height (inches)	Standard		Minimum	
	Weight	Chest measurement at expiration	Weight	Chest measurement at expiration
	<i>Pounds</i>	<i>Inches</i>	<i>Pounds</i>	<i>Inches</i>
60.....	116	31 $\frac{1}{4}$	105	28 $\frac{3}{4}$
61.....	119	31 $\frac{1}{2}$	107	29
62.....	122	31 $\frac{3}{4}$	109	29 $\frac{1}{4}$
63.....	125	32	111	29 $\frac{1}{2}$
64.....	128	32 $\frac{1}{4}$	113	29 $\frac{3}{4}$
65.....	132	32 $\frac{1}{2}$	115	30
66.....	136	32 $\frac{3}{4}$	117	30 $\frac{1}{4}$
67.....	140	33	121	30 $\frac{1}{2}$
68.....	144	33 $\frac{1}{4}$	125	30 $\frac{3}{4}$
69.....	148	33 $\frac{1}{2}$	129	31
70.....	152	33 $\frac{3}{4}$	133	31 $\frac{1}{4}$
71.....	156	34	137	31 $\frac{1}{2}$
72.....	160	34 $\frac{1}{4}$	141	31 $\frac{3}{4}$
73.....	164	34 $\frac{1}{2}$	145	32
74.....	168	34 $\frac{3}{4}$	149	32 $\frac{1}{4}$
75.....	172	35	153	32 $\frac{1}{2}$
76.....	176	35 $\frac{1}{4}$	157	32 $\frac{3}{4}$
77.....	180	35 $\frac{1}{2}$	161	33
78.....	184	35 $\frac{3}{4}$	165	33 $\frac{1}{4}$

10. Directions for taking height and weight.—*a.* The measuring rod should consist of a board at least 2 inches wide by 80 inches long, placed vertically, firmly fixed, with accurate graduations of $\frac{1}{4}$ inch between 58 inches and the top end. Obtain the height by placing

horizontally, in firm contact with the top of the head, square against the measuring rod a board of about 6 by 6 by 2 inches, best permanently attached to the graduated board by a long cord. The individual should stand erect with back to the graduated board, eyes straight to the front. The shoes should be removed when the height is taken.

b. The weight should be taken with the clothing removed.

11. General service.—*a.* Those who fall within the requirements for height, weight, and chest measurement given in the table in paragraph 9.

b. Those whose weight is greater than the standards indicated for the height, provided the overweight is not so excessive as to interfere with military training.

12. Limited service.—Individuals who on examination are found to present conditions not within the accepted measurements for weight and chest circumference given in the table (par. 9), who are otherwise mentally and physically fit, and who do not fall within the nonacceptable class may be accepted for limited military service.

13. Nonacceptable.—*a.* Less than 60 inches in height.

b. Less than 105 pounds in weight.

c. A height of more than 78 inches.

d. Overweight which is greatly out of proportion to the height if it interferes with normal physical activity or with proper training.

14. General considerations.—*a.* Individuals of 76 inches or more in height will be studied for the possibility of gigantism or acromegaly.

b. Examining physicians will use discretion and judgment in accepting registrants with variations in the ratio of height, weight, and chest measurements indicated in the table (par. 9). When the weight is disproportionate and is believed to be due to some temporary condition, proper allowances may be made, provided it is the opinion of the examining physician that the variation is correctible with proper food and physical training. No individual will be accepted, however, whose weight is less than 105 pounds.

SECTION IV

EYES

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15. Vision.—Visual acuity will be determined by standard methods. Except as otherwise noted, examine each eye separately, without glasses, covering the other eye with a card (not with the hand). The individual is directed to read the test types from the top of the chart down as far as he can see, and his acuity of vision is recorded for each eye, with the distance of 20 feet as the numerator of a fraction and the size of the type of the lowest line he can read correctly as the denominator. If he reads the 20-foot type correctly, his vision is normal and recorded 20/20; if he does not read below the 30-foot type, the vision is imperfect and recorded 20/30; if he reads the 15-foot type, the vision is unusually acute and recorded 20/15, etc.

16. General service.—*a.* Binocular (both eyes open) vision of not less than 20/40 without glasses, provided the vision in the more defective eye is not less than 20/70 without glasses and provided the defective vision is not due to active or progressive organic disease.

b. Registrants whose visual acuity without glasses is not less than 20/200 in each eye or 20/100 in one eye and 20/400 in the second eye, if vision is correctible to either 20/40 in each eye, 20/30 in the right eye and 20/70 in the left eye, or 20/20 in the right eye and 20/400 in the left eye and provided the defective vision is not due to active or progressive

organic disease. The actual possession of suitable glasses by an individual is not required for his acceptance under these standards.

c. Conditions due to iridectomy or other operation upon the eye, if the condition for which the operation was performed has been relieved and the vision is within or above the minimum standard requirements.

d. Nystagmoid movements, if not persistent or pronounced and if true nystagmus is excluded.

e. Chronic simple conjunctivitis, if mild.

f. Slight adhesion of the lids to the eyeball.

g. Small pterygium not encroaching on cornea so as to interfere with vision.

h. Ptosis which does not interfere with vision.

i. Color blindness.

j. Exophthalmos, if not of such degree as to have led to or threatened corneal ulceration and provided hyperthyroidism is excluded.

k. Blepharitis marginalis, if mild.

l. Blepharospasm, if mild.

m. Superficial corneal ulcer, provided acceptance is deferred until ulcer is healed without disqualifying impairment of vision.

17. Limited service.—*a.* A minimum vision of 20/400 in each eye without glasses, correctible to 20/40 in one eye and 20/70 in the second eye, or 20/30 in one eye and 20/100 in the second eye.

b. Loss of one eye (anophthalmos) or any degree of defective vision in one eye from below 20/400 to no light perception, if such defective vision is not due to active or progressive organic disease, with vision in the other eye of 20/100 without glasses, correctible to 20/20 with glasses.

18. Nonacceptable.—Defects such as—

a. Vision less than the minimum requirements for limited military service.

b. Deformity of the eyelid or eyelids, such as inversion or eversion of a degree that forcible closure fails to cover the eyeball or in which there is a resultant conjunctival inflammation, corneal irritation, or a restriction of the rotation of the eyeball.

c. Lagophthalmos, if extreme.

d. Pronounced exophthalmos.

e. Chronic keratitis.

f. Chronic recurrent inflammatory disease of the cornea or uveal tract.

g. Chronic ulcer of cornea.

h. Any active disease of the retina, choroid, or optic nerve.

i. Detachment of the retina.

j. Nystagmus.

k. Glaucoma.

l. Diplopia due to paralysis of extrinsic ocular muscles, unless mild in degree.

m. Abnormal condition of eyes due to disease of the brain.

n. Trachoma.

o. Any tumor of the orbit.

p. Permanent and well-marked strabismus (over 30° deviation).

q. Ptosis interfering with vision.

r. Trichiasis.

s. Chronic conjunctivitis, other than mild, simple.

t. Chronic dacryocystitis.

u. Pterygium interfering with vision.

19. Visual tests for detection of malingerers.—*a.* Malingerers may feign inability to open their eyes, total loss of vision in one or both eyes, or impaired vision in one or both eyes. Occasionally, an inflammation in the eyes will be produced by putting sand or other irritating substance under the lids.

b. Malingerers who wish to evade military service by feigning impairment of vision may be divided into two classes, as follows:

- (1) Those who claim total loss of vision in one eye.
- (2) Those who claim partial loss of vision in one or both eyes. Either group may have a normal acuity of vision or may exaggerate a defect actually present.

c. In testing for malingering the examining physician will bear in mind that detection is more likely to result when the man is allowed to believe that his case is regarded from the first as genuine and that his story is not discredited. There is something indefinable in the bearing of the malingerer which experience alone can detect. He may be self-assertive and overconfident; he may be hesitant or evasive. Careful observation will be made of his conduct and every movement noted. The nature of the man's answer will be taken into account and considered in the light of the kind of reply that is given when a nonmalingerer is being examined.

d. The following equipment should be available.

- (1) Trial frame, blank, spherical lenses: +16, +3, +0.25, -3, -2, -1, -0.25.
- (2) Two prisms, one 6° and one 10°.
- (3) Ophthalmoscope (electric battery in handle).
- (4) Condensing lens.
- (5) Loupe.
- (6) Red and green letters on glass:
 - (a) Letters varying in size.
 - (b) Spectacle frame containing red and green glasses.
- (7) Special test cards, one a duplicate, with letters reversed to use with a mirror.
- (8) Special illiterate test cards.
- (9) Mirror large enough to reflect test cards.
- (10) One stereoscope with special card.
- (11) Retinoscope (electric, with battery in handle).
- (12) Ruler about 1¼ inches wide.
- (13) Three disks of polaroid 36 mm in diameter and 2 mm thick.

e. The principle involved in the polaroid test is that light polarized in any given meridian by a polaroid screen is selectively absorbed by an analyzing polaroid screen the axis of which is at an angle to the axis of the polarizing screen. The test may be conducted as follows: Three disks of polaroid 36 mm in diameter and 2 mm thick are required. They are held in the ordinary trial frame with the handle corresponding to the polarizing axis. One polaroid disk is placed before each eye with the polarizing axis horizontal. The individual is then asked to read the smallest possible line of letters on the test chart with both eyes open. Immediately, the third polaroid disk is rotated so that the polarizing axis becomes vertical for the length of time that it takes to read three or four letters. The rotation of the third disk to the vertical position prevents the passage of any light so that, if the reading of the test chart is continued during this time, it is very evident that the poor eye is functioning. The disk may be used with correcting spectacle lenses if necessary. Care must be exercised to see that the poor eye is not closed while the polarized disk before the other eye is at right angles. Also, the good eye must be occluded by the opposed polaroid disk for only a short period at a time so that the individual does not become aware of the momentary elimination of visual acuity in that eye.

20. Other methods of examination.—a. To verify total loss of vision in one eye.

- (1) A 6° prism, base down, is placed before the admittedly sound eye while the man looks at a distant light or candle. If he sees two candles, binocular vision is proved. The examiner may vary the test by placing the prism before the "blind" eye, either base up or base down.
- (2) A prism of 10°, with base outward, is placed before the "blind" eye. If there is any sight in this eye, double vision will be produced and the eye will be seen to move inward to correct it and fuse the two images.

- (3) The alleged "blind" eye is covered. A prism of 10° , with the apex up, is placed before the "seeing" eye in such a position that its edge lies horizontally across the center of the pupil. This produces monocular diplopia. The prism is then moved upward so as to be completely in front of the good eye and at the same time the "blind" eye is uncovered. If diplopia is produced or admitted, there is sight in the "blind" eye.
 - (4) Test with colored glasses and letters.—This consists in directing the individual to read a row of special red and green letters on glass through a special red and green glass. The red letters will be invisible to the eye that has the green glass, and vice versa, but if all the letters are correctly read, irrespective of their color, there must be sight in the "blind" eye. The proper illumination back of the chart must be observed. This test is not applicable to individuals who are color blind to red and green.
 - (5) *Test with trial glasses.*—A high plus glass is placed before the good eye and a low plus or minus before the "blind" eye. If the distant type is read, the vision in the "blind" is good.
 - (6) *Stereoscope test.*—This may be made with ordinary stereoscope, the printed matter so arranged that certain portions of it are not present before one of the eyes.
 - (7) *Bar test.*—Interpose a ruler about $1\frac{1}{4}$ inches wide vertically midway between the two eyes at about 4 to 5 inches' distance; direct the man to read from a printed page with lines at least 4 inches long. If able to read the lines, binocular vision exists.
 - (8) *Pupil action.*—The action of the pupil must be carefully tested, there usually being no movement to light stimulation when the eye is blind. If the examiner is not satisfied, the following examination will be made:
 - (a) *Oblique examination.*—A careful examination of the cornea will be made with the aid of a condensing lens and a loupe.
 - (b) *Ophthalmoscopic examination.*—A searching examination with the ophthalmoscope will be made, together with an estimation of the refractive error. The pupil will be dilated if necessary.
- b. *To verify partial loss of vision in one or both eyes.*
- (1) The most common manifestation of malingering takes the form of a statement that one eye is imperfect. Men pleading this disability may be divided into two classes:
 - (a) Those who pretend to have a visual defect.
 - (b) Those who are aware that they have a visual defect and exaggerate its effect.
 - (2) No hard-and-fast tests can be prescribed for the detection of these cases. Much depends on the alertness and ingenuity of the examining physician.
 - (3) The tests with prisms are not applicable here, for there is not pretended blindness in one eye but simply an alleged diminution of visual acuity.
 - (4) If a room 30 to 40 feet long can be obtained for testing vision, place the individual suspected of malingering at 30 to 35 feet from the test chart. Direct him to read the letters and note the result. He should then be brought up to 30 feet from the card and retested. If he still reads only the same line and does not read any of the smaller type, he is malingering.
 - (5) *Mirror test with special cards.*
 - (a) Test cards are used which are identical, one having the letters reversed. The registrant is directed to read the letters on the chart across the room and then in a mirror beside it which reflects reverse letters that are placed over his head. The letters seen in the mirror are located double the distance

of the direct letters from the man being examined. The malingerer is apt to read in the mirror the line which he read on the first card, showing that his vision is twice as good as he pretends.

(b) In order to obviate the use of test letters in the mirror test, various common objects approximating the size of the 20/40 and 20/30 letters may be used by asking an individual to differentiate between a dime and a penny, a cigarette and a pencil, a pen and a pencil, the number of spots on playing cards, or between the different aces, held on either side of his head and reflected in the mirror at 20 feet distance.

(6) *Trial frame test.*—Place a trial frame upon the man's face and put before the sound eye a high convex lens (−16D) and before the weak eye a plane or weak lens (0.25) which will not interfere with vision. If letters placed at a distance of 20 feet are read, the fraud is at once exposed.

(7) *Oblique examination.*—This is conducted with condensing lens and loupe to determine corneal or lenticular opacities.

(8) *Ophthalmoscopic examination.*

(a) It is probable that the malingerer will resist the ophthalmoscopic examination by frequent winking or rolling of the eyes. In this event, it is best to caution the man that a report of his vision must be made, and then to postpone further examination until after the next few individuals have been examined.

(b) Use the ophthalmoscope as an aid in estimating the refractive error. If no error of marked degree exists and the media and fundi are normal, the relation between the alleged vision and the refractive condition furnishes an important clue. If the error is about +4 or −2, the visual acuity could be about 20/100 but when the defect cannot be accounted for objectively and the vision is brought from 20/100 to 20/30 by means of a low plus or minus glass, the man is malingering.

(9) *Retinoscopy.*—Look for corneal and lenticular opacities and estimate refractive errors.

c. Occupation.

(1) The man's occupation in civil life may have been such that it could not have been followed without more vision than he claims.

(2) In the absence of ocular defects, continuous and persistent blepharospasm, the use of colored glasses, eye shades, or eye bandages will be regarded with suspicion.

d. *Diplopia.*—Cases of malingering are occasionally met with in which the men complain that they see double. These must be investigated with the application of the ordinary tests as if they were genuine and with every precaution taken to guard against a serious nerve lesion being overlooked.

SECTION V

EARS

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Determination of auditory acuity.....	22
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21. Examination for disease.—The external ears and mastoid region will be examined by inspection and, if necessary, the mastoid region by palpation. The external auditory canal

and membrana tympani will be examined by reflected light or by a self-illuminating otoscope. Cerumen will be removed, if necessary, in order to visualize satisfactorily the membrana tympani.

22. Determination of auditory acuity.—Acuity of hearing will be determined by the whispered voice test. To determine the acuity of hearing, place the registrant facing at right angles to the assistant, 15 feet distant, with ear to be tested toward the assistant, and direct him to repeat promptly the words spoken by the assistant. If the registrant cannot hear the words at 15 feet, the assistant will approach foot by foot, using the same whisper, until the words are correctly repeated. Examine each ear separately, closing the other ear by pressing the tragus firmly against the meatus; the examiner may face the same direction as the registrant and close one of his own ears in the same way as a control. The assistant will use a whispered voice produced by speaking with the lungs in a state of complete exhalation so as to assure as great uniformity of sound output as possible. The whisper should be plainly audible to the examiner and use will be made of numerals, names of places, or other words or sentences, until the condition of the registrant's hearing is evident. The acuity of hearing will be expressed as a fraction, the numerator of which is the distance in feet at which the words are heard by the normal ear; thus 15/15 indicates normal hearing, 10/15 partial hearing of a degree indicated by the fraction, that is, the registrant hears at 10 feet distant the words which the normal ear hears at 15 feet.

23. General service.—*a.* Hearing in each ear of 8/15 or better, or 15/15 in one ear and less than 8/15 in the other.

b. Healed scar of mastoid operation without marked deformity and if hearing is not below requirements.

24. Limited service.—There are no defects in hearing that warrant initial classification for limited service.

25. Nonacceptable.—Defects such as—

a. Hearing less than the minimum hearing prescribed under general service.

b. Purulent otitis media with or without mastoiditis.

c. Perforation of the membrana tympani.

d. Acute or chronic mastoiditis.

e. Total loss of an external ear.

f. Severe atresia of the external auditory canal.

26. Tests for malingering in hearing.—Individuals who are malingerers in regard to hearing usually claim magnification of slight imperfection on one side with a complaint of past trouble. Exaggeration of defects in hearing extends usually to declarations of total deafness on one side. The following directions will be observed in examining suspected malingerers:

a. In making these examinations the observer will have a skilled assistant and all communications between them will be in a low, whispered voice.

b. The assistant will stand at the back of the suspected malingerer and will, at the direction of the examining physician, obstruct the ears of the suspect as directed, by pressing the tragus firmly into the auditory meatus.

c. The suspected malingerer's eyes will be securely and completely blindfolded.

d. An accurate notation will be made of which ear is deaf as claimed by the individual. Then a critical examination of the auditory canal, membrana tympani, and for patency of the eustachian tubes will follow.

e. Then an accurate test of the normal ear will be made.

f. If the suspect gives markedly conflicting statements when the normal ear is tightly plugged as to the distance at which he hears the voice, it is fair to assume that he is a malingerer.

g. The simplest and most available test for malingering is the use of an ordinary binaural stethoscope. The tubing leading to the earpiece to be applied to the normal ear

is occluded by clamping with a hemostat and the earpieces are placed in the ears of the blindfolded suspect. The examining physician speaks in a soft tone or counts into the bell-shaped chest portion of the stethoscope and the suspect is told to repeat what he hears. The tubes are removed from the ears, and the assistant is told to occlude the normal ear. The same words or numerals are repeated. The suspect will now claim failure to hear the words or numerals which he had previously heard through the tube with the allegedly deaf ear.

h. Erhard's test is another simple method for malingerers which requires no special apparatus. If the external auditory canal of a normal ear is tightly packed with absorbent cotton, it will still conduct sound waves to a limited degree, a loud-ticking watch even under these circumstances being heard about 1 or 2 meters. The suspect has his ear which is stated to be deaf occluded with cotton, and then the test is made with the hearing of the normal ear, the suspect being told to count the ticks of the watch. The suspect's normal hearing ear is then occluded with cotton and the testing is made with the unoccluded supposedly deaf ear. Under this test, if he claims failure to hear the watch under 1 meter, he is malingering.

i. The Chiman-Moos test is made with the C2 tuning fork. The vibrating tuning fork is held at equal distance from each ear. The suspect may claim that he hears it better in the normal ear. The vibrating tuning fork is then placed on the vertex of the skull. The suspect hearing it equally well in both ears will at first hesitate and then state he hears it better in the normal ear. In diseases of the conducting apparatus he will hear it better in the diseased ear. If now the external meatus of the normal ear is tightly closed and the vibrating tuning fork is placed upon the vertex of the skull, the individual with the diseased ear will state he hears it better in the normal, closed ear, or it may be impossible for him to decide in which ear he perceives the tone better. The suspect, with the normal ear tightly obstructed, will state that he does not perceive the sound of the fork when thus placed on the vertex of the skull.

SECTION VI

MOUTH, NOSE, FAUCES, PHARYNX, TRACHEA, ESOPHAGUS, AND LARYNX

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27. General service.—*a.* Enlarged tonsils.

b. Adenoids.

c. Deviation of the nasal septum or enlarged turbinates which do not interfere more than mildly with nasal breathing.

d. Acute primary sinusitis, provided the acceptance of the individual is deferred for reexamination until after a reasonable time has elapsed and the sinusitis has disappeared.

e. Hay fever, if mild.

28. Limited service.—*a.* Deviation of the nasal septum or enlarged turbinates which do not interfere more than moderately with nasal breathing.

b. Hay fever, if moderate.

29. Nonacceptable.—Defects such as—

a. Deformities of the mouth, throat, and nose which interfere with mastication of ordinary food, with speech, or with breathing.

b. Destructive syphilitic disease of the mouth, nose, throat, larynx, or esophagus.

c. Laryngeal paralysis due to any cause.

d. Tracheostomy.

e. Stricture of the esophagus.

f. Chronic sinusitis of the accessory sinuses of the nose. (This diagnosis will be established by the presence of a chronic purulent nasal discharge, large nasal polypi, and other signs and symptoms and confirmed by transillumination or X-ray examination, or both.)

g. Chronic atrophic rhinitis with offensive odor (ozena).

h. Malignant neoplasms.

i. Nasal obstruction due to septal deviation, hypertrophic rhinitis, or other causes, if sufficient to cause mouth breathing.

j. Aphonia.

k. Hay fever, if severe.

l. Chronic laryngitis.

m. Perforation of the hard palate.

n. Stricture or other organic disease of the esophagus.

o. Harelip.

p. Perforation of the nasal septum associated with interference of function, or ulceration or crusting, and when due to organic disease.

30. Use of diagnostic aids.—Examining physicians will make use of laryngoscopy, transillumination of the sinuses, and X-ray when available to determine more definitely the physical fitness of individuals who have defects involving the upper air passages, head, or esophagus when such diagnostic aids are indicated.

SECTION VII

DENTAL REQUIREMENTS

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31. General service.—*a.* Individuals who are well nourished, of good musculature, are free from gross dental infections, and have a minimum requirement of an edentulous upper jaw and/or an edentulous lower jaw, corrected or correctible by a full denture or dentures.

b. Malocclusion.—When it is evident from the individual's general physical condition that his malocclusion has not seriously interfered with the mastication of a normal diet, provided that in the excursions of the mandible or with the mandible at rest, the teeth do not impinge upon opposing soft tissues and that the malocclusion has not resulted in secondary pathological changes.

32. Limited service.—There are no dental conditions that warrant classification as limited service.

33. Nonacceptable.—*a.* Diseases of the jaws and associated structures which are irremediable or not easily remedied, or which are likely to incapacitate the individual for satisfactory performance of military duty.

b. Extensive loss of oral tissue in an amount that would prevent replacement of missing teeth by a satisfactory denture.

34. General considerations.—Examining dentists, to protect the interest of the Government and the individual, will exercise every care to indicate clearly the status of every tooth, as well as those extracted, missing, or unerupted. The exact teeth replaced by a prosthetic appliance or bridge (with abutments) as well as the serviceability of the appliance will be recorded. Defects, infections (including pyorrhea) will be listed and classified as to severity.

SECTION VIII

SKIN

	Paragraph
General service.....	35
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Nonacceptable	37

35. General service.—*a.* Acute nonexanthematous and noncommunicable diseases of the skin which ordinarily run a temporary course.

b. Diseases which are trivial in character and which do not interfere with the general health and are not incapacitating. Among these common and usually trivial diseases may be enumerated—

- (1) Acne, mild or moderate. (Care must be taken to exclude individuals with chronic severe acne, particularly when the face is involved to the extent of being markedly disfiguring or the shoulders extensively involved, making it likely to be aggravated by shoulder straps or packs or by other military equipment.)
- (2) Anomalies of pigmentation.
- (3) Scars not extensive, disfiguring, nor incapacitating in character.
- (4) Warts, except plantar warts on weight bearing areas.
- (5) Skin infections, if mild and considered of no significance.
- (6) Acute eczema, if mild.
- (7) Naevi which are not greatly disfiguring and are not so located as to be subject to irritation or trauma by the normal wearing of military equipment.
- (8) All forms of pediculosis.
- (9) All forms of ringworm, unless severe and not easily remediable.
- (10) Scabies, unless severe and not easily remediable.
- (11) Mild and not extensive psoriasis.

c. Simple ulcers or other acute pathological conditions of the skin which are easily curable.

d. Unusual skin conditions should arouse suspicion of self-inflicted lesions (dermatitis factitia). See section XXIII.

e. True alopecia areata, provided the existence of disqualifying endocrine, neurological, or other disqualifying conditions are excluded.

36. Limited service.—There are no skin criteria to warrant initial selection for limited service.

37. Nonacceptable.—Serious or incapacitating skin disorders such as—

a. Chronic skin disease, chronic ulcers of the skin, or cured syphilitic lesions which are so severe as to incapacitate the individual for the duties of a soldier or so disfiguring as to render the individual objectionable in common social intercourse.

b. Actinomycosis.

c. Dermatitis herpetiformis of long duration.

d. Epidermolysis bullosa.

e. Generalized dermatitis of long duration.

f. Allergic dermatoses, if severe.

g. Mycosis fungoides.

h. Chronic pemphigus.

i. Lupus vulgaris.

j. Elephantiasis.

k. Ringworm, if very severe and not easily remediable.

l. Psoriasis, if other than mild.

m. Scabies, if very severe and not easily remediable.

n. Cysts and benign tumors of the skin of such size and/or location as to interfere with the normal wearing of military equipment.

- o.* Pilonidal cyst or sinus. (If there is only a simple dimpling of the skin or short simple sinus in the postanal region, the individual will be accepted for general service.)
- p.* Plantar warts on weight bearing areas.

SECTION IX

HEAD

	Paragraph
General service.....	38
Limited service.....	39
Nonacceptable.....	40

38. General service.—*a.* Moderate deformities of the bones of the skull such as depressions, exostoses, etc., unassociated with evidence of disease of the brain, spinal cord, or peripheral nerves and not preventing the individual from wearing military headgear.

b. Abnormalities which are apparently temporary in character resulting from recent injuries. (These include severe contusions and other wounds of the scalp and cerebral concussion. Individuals with these conditions will have the final examination temporarily deferred for 3 months.) See paragraphs 90*c* and 91*h*.

39. Limited service.—There are no head defects to warrant initial selection for limited service.

40. Nonacceptable.—*a.* Deformities of the skull in the nature of depressions, exostoses, etc., of a degree which would prevent the individual from wearing military headgear.

b. Deformities of the skull of any degree associated with evidence of disease of the brain, spinal cord, or peripheral nerves. See paragraphs 90*c* and 91*h*.

SECTION X

SPINE, SCAPULAE, AND SACROILIAC JOINTS

	Paragraph
General service.....	41
Limited service.....	42
Nonacceptable.....	43
X-ray examination.....	44

41. General service.—*a.* Lateral deviation of the spine of 1 inch or less from the midline if the mobility and weight bearing power are good.

b. Fracture of the coccyx.

c. Prominent scapulae not interfering with wearing of uniform or military equipment.

d. Complaint of disease of the sacroiliac and lumbo-sacral joints which is unassociated with objective signs and symptoms.

e. Fracture of the spine or pelvic bones which has healed without marked deformity and which has not interfered with the following of a useful vocation in civil life.

f. Spina bifida occulta providing it is asymptomatic, unassociated with objective signs and symptoms and can be demonstrated by X-ray examination only.

42. Limited service.—Lateral deviation of the spine from the midline of more than 1 inch and less than 2 inches.

43. Nonacceptable.—Conditions such as—

a. Tuberculosis, either active or healed.

b. Osteoarthritis or rheumatoid arthritis, or chronic arthritis from any cause.

c. Healed fractures of the vertebrae or pelvic bones with associated symptoms which have prevented the individual from following a useful vocation in civil life.

d. Lateral deviation of the spine from the midline of more than 2 inches, curvature of the spine (scoliosis, kyphosis, or lordosis) of a degree sufficient to interfere with the wearing of a uniform or military equipment or which has prevented the individual from following a useful vocation in civil life.

e. Disease of the sacroiliac and lumbo-sacral joints which is of a chronic type and is obviously associated with pain referred to the lower extremities, muscular spasm, postural deformities, and limitation of motion in the lumbar region of the spine.

f. Nucleus pulposus (herniation intervetebral disc) or history of operation for this condition.

44. X-ray examination.—When examining physicians are in doubt concerning the cause and the extent of disease of the bones and joints, an X-ray examination will be made.

SECTION XI

EXTREMITIES

	Paragraph
General service.....	45
Limited service.....	46
Nonacceptable.....	47
General considerations.....	48

45. General service.—*a.* Old or recent fractures which have healed normally with no resulting impairment of function.

b. Recent injury of a bone or joint with or without fracture or dislocation which, in the opinion of the examiners, is only temporarily incapacitating. (Individuals with these conditions will be given a period of time not less than 6 weeks for recovery before the final examination is made.)

c. Webbed fingers and toes, unless severe in degree.

d. Entire loss of little finger of either of both hands, or the ring finger of the left hand.

e. Loss of terminal phalanx of the right index finger; loss of the terminal and middle phalanges of one finger, except the right index finger, on one or both hands; loss of one phalanx of one or all fingers on one or both hands, provided the function of the hand is ample to permit the performance of general military duty.

f. Scars and deformities of moderate degree of the hand or hands which do not interfere with normal function.

g. Stiff fingers of a degree not to interfere with function.

h. Flat foot unless accompanied with symptoms of weak foot or when the foot is weak on test. Pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, and rigid flat foot are disqualifying regardless of the presence or absence of subjective symptoms.

i. Hammertoe which does not interfere with the wearing of a military shoe.

j. Hallux valgus, unless severe.

k. Absence of one or two of the small toes of one or both feet, if function of the foot is good.

l. Ingrowing toenails, unless severe.

46. Limited service.—*a.* Loss of two entire fingers of either hand, except a combination of the right index and middle finger.

b. Webbed fingers or toes, if severe in degree.

c. Moderate deformities of one or both upper extremities which do not and have not interfered with function to a degree to prevent the individual from following a useful vocation in civil life.

d. Abduction and pronation of the foot (knock-ankle) when this condition is not associated with rigidity of the tarsal joint or with deformity of the foot.

e. Loss of great toe.

f. Loss of dorsal flexion of great toe.

g. Clubfoot of slight degree if tarsal, metatarsal, and phalangeal joints are flexible, permitting wearing of the military shoe and, in the opinion of the examiner, will not interfere with the performance of military duty.

h. Slight claw toes not involving obliteration of the transverse arch and which do not interfere with the wearing of a military shoe.

i. Other defects of the feet which disqualify for general military service but do not prevent the individual from wearing a military shoe and which have not prevented him from following a useful vocation in civil life.

j. Moderate deformities of one or both lower extremities which do not and have not interfered with function to a degree to prevent the individual from following a useful vocation in civil life.

k. Adherent scars of the skin and soft tissues of an extremity, if not incapacitating and not likely to break down.

l. Healed disease or injury of wrist or elbow with resulting limitation of motion, if not severe in degree.

m. Internal derangement of knee joint—

(1) History of, providing disability has been mild and infrequent.

(2) Operation for, providing a period of 6 months has elapsed since operation with freedom from symptoms.

Under (1) and (2) above, the knee ligaments should be stable in lateral and antero-posterior directions in comparison with the normal knee; the X-ray should be negative; the thigh musculature not weak or atrophic enough to interfere with function and the full active motion in flexion and extension is present.

47. Nonacceptable.—Defects such as—

a. Loss of one or both thumbs.

b. Loss of more than two entire fingers of either hand.

c. Tuberculosis of a bone or joint.

d. Old ununited fractures.

e. Old unreduced or recurring dislocations of any of the major joints.

f. Disease of any bone or joint healed with such resulting deformity or rigidity that the function is impaired to a degree that it will interfere with military service.

g. Muscle paralysis or contraction which disturbs function to the degree of interference with military service.

h. Adherent scars of skin or soft tissue to a degree which seriously interfere with function.

i. Varicose veins, if severe in degree or if associated with edema or with present or previous ulcer of the skin.

j. Rigid flat foot or flat foot when accompanied with symptoms of weak foot or when the foot is weak on test. Pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, are disqualifying regardless of the presence or absence of subjective symptoms.

k. Obliteration of the transverse arch associated with permanent flexion of the small toes (claw toes).

l. Hallux valgus, if severe and associated with marked exostosis or bunion.

m. Clubfoot, if marked in degree or which interferes with the wearing of a military shoe.

n. Diseases of the bone or of the hip, knee, or ankle joint which interfere with function and weight-bearing power.

o. Deformities due to fracture or other injury which seriously interfere with function and weight-bearing power.

p. Sciatica which is apparently intractable and disabling to the degree of interference with the function of walking and weight-bearing power.

q. Amputations of extremities in excess of those already cited.

r. Active osteomyelitis of any bone, or a substantiated history of osteomyelitis of any of the long bones of the extremities at any time.

s. Osteoarthritis or rheumatoid arthritis, or chronic arthritis from any cause.

t. Plantar warts on weight-bearing areas.

48. General considerations.—It is important that individuals with defects of the feet which would prevent them from taking proper training will not be classified for general military service.

SECTION XII

NECK

	Paragraph
General service.....	49
Limited service.....	50
Nonacceptable.....	51

49. General service.—*a.* Nonspastic contraction of the muscles of the neck which is not of great degree and will not prevent the wearing of a uniform or military equipment.

b. Simple goiter unassociated with pressure symptoms, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.

c. Enlarged lymph nodes of the neck which are not a manifestation of systemic disease, do not apparently interfere with the general health, and are not large enough to interfere with the wearing of a uniform or military equipment.

d. Healed tuberculous lymph nodes when few in number and densely calcified.

e. History of thyroidectomy for nontoxic goiter.

50. Limited Service.—History of thyroidectomy for toxic goiter with complete absence of active manifestations for 2 years.

51. Nonacceptable.—*a.* Toxic goiter.

b. Tumor of thyroid or other structures of the neck, including enlarged lymph nodes and benign tumors of the neck, if the enlargement is of such degree as to interfere with wearing of a uniform or military equipment.

c. Enlargement of the lymph nodes of the neck associated with leukemia or Hodgkin's disease.

d. Lymphosarcoma.

e. Tuberculous lymph nodes, except as specified in paragraph 49*d.*

f. Nonspastic contraction of the muscles of the neck or cicatricial contraction of the neck to the extent that it interferes with the wearing of a uniform or military equipment or so disfiguring as to render the individual objectionable in common social intercourse.

g. Spastic contraction of the muscles of the neck.

h. Simple goiter, if associated with pressure symptoms confirmed by X-ray, or if enlargement is of such a degree to interfere with wearing of a uniform or military equipment.

SECTION XIII

LUNGS AND CHEST WALL

	Paragraph
Chest examination.....	52
History.....	53
X-ray examination.....	54
Physical examination.....	55
Other examinations.....	56
General service.....	57
Limited service.....	58
Nonacceptable.....	59
General considerations.....	60

52. Chest examination.—The chest examination will include a roentgenogram, as well as the usual methods of physical diagnosis. A pertinent history of past chest diseases will

be taken. Because of its importance and frequency, special consideration must be given to the detection of tuberculosis.

53. History.—Inquiry will be made about previous and present symptoms of respiratory disorders, particularly if abnormalities of the chest are discovered, if the weight is below normal without other explainable cause, if there is unexplained fever, or if there are indications of possible tuberculous lesions in other parts of the body, such as fistula in ano or enlarged lymph nodes. The history of chronic or frequently recurring cough and expectoration, hemoptysis, pleurisy, or chronic laryngitis requires special investigation for a cause. It must be remembered, however, that pulmonary tuberculosis may exist in its earliest stages without producing any symptoms.

54. X-ray examination.—Chest X-ray films will be made as part of the physical examination of all selectees, applicants for voluntary enlistment of any type, and applicants for reenlistment, and will serve as permanent records. Care will be exercised in processing these films to insure their keeping qualities. It is imperative that these films be clearly marked as outlined in paragraph *a* below.

a. Identification of films.—

(1) Identifying marks which are photographed on the film at the time of its exposure are most satisfactory. When the photoroentgenographic method of X-ray examination is employed, this may be accomplished with the special attachment which forms an integral part of the camera unit. With standard X-ray equipment as much identifying data as possible should be recorded on the film at the time of exposure by use of lead numbers, lead foil stencils, or other suitable means. The additional identifying data required should be added in ink at the bottom of the film. The Army serial number in most cases cannot be recorded photographically at the time the film is made, as the examination precedes acceptance. The serial number will be added as soon as practicable after the film is processed, either in ink or with a perforating machine making letters and figures of the appropriate size, and is to be recorded on the light portion of the film corresponding to the subdiaphragmatic area. Data photographically recorded will be located in the upper right and left corners of the film. It is essential that the photographed identification be clearly legible without magnification. Photographing of the caption in such a way that it may be read when the film is viewed with the heart to the observer's left is recommended.

(2) The minimum identifying data will be: place of examination; date; individual's last name, first name, and middle initial; his home address; Army serial number; age in years; weight in pounds; abbreviation for race; and, in the case of Selective Service registrants, the local board identification code number. The abbreviation for race will be W, N, or O, conforming with the specifications for White, Negro, and other registrants in DSS Form 221. Except for the Army serial number, these data can be photographed on the film at the time this is made. They should appear in the upper corners of the film as indicated in the following example:

Armed Forces Induction Station
Philadelphia, Pa.
28 July 1943

DOE, John D.
612 Lombard St.
Philadelphia, Pa.
LB 32-050-012
31-W-156

(The local board identification code number will be found at the right side of the local board stamp placed on DSS Form 221.)

(3) Since serial numbers are not given until men have been accepted for service, all films of accepted men will be held at the home station of the Army examining boards until individual serial numbers have been obtained and entered thereon.

b. Disposition of films made in continental United States and Puerto Rico.—

- (1) Chest X-ray films made in the examination of men accepted for enlistment or induction into the service, after being carefully checked for proper identification, will be assembled in packages of appropriate size and mailed promptly under penalty cover to the Veterans Administration, Kansas Avenue and Upshur Street NW., Washington 25, D.C. All packages of films sent to the Veterans Administration will be labeled "Exposed X-ray Films" and will show the name of the Army organization making shipment.
- (2) All chest X-ray films of individuals who are rejected for any reason will be delivered to the Selective Service System in accordance with agreements entered into between the service command and the State Director of the Selective Service System in the State from which the registrants are presented. Subject to such local agreements, films of rejected individuals in general will be separated and forwarded to State directors in appropriately labeled packages as indicated below:
 - (a) "Films of individuals recommended for reexamination in 6 months, or other specified period, because of borderline tuberculosis or other chest conditions."
 - (b) "Films of individuals rejected because of tuberculosis or other chest conditions."
 - (c) "Films of individuals rejected because of other than chest conditions."

c. Disposition of films made in Hawaiian Department.—Chest X-ray films made on individuals in the Hawaiian Department will be held there for the present.

55. Physical examination.—This will include inspection, palpation, percussion, and auscultation of the chest.

a. Structural abnormalities of the thoracic wall and striking rapidity, limitation, or inequality of the respiratory movements are to be noted.

b. Abnormal physical signs in the lungs, pleura, or mediastinum will be carefully checked to ascertain whether they persist or are only transitory.

c. Particular attention will be focused upon the occurrence of pulmonary rales, which may be elicited only after the expiratory cough. The subject will be instructed to exhale completely with the mouth open, immediately to cough before inhaling, and then to inhale deeply but quietly. Rales are heard most often at the beginning of inhalation after such an expiratory cough. A small patch of persistent rales at the apex, in the interscapular area, or in some other part of the chest may be the only evidence of tuberculosis shown by physical examination.

d. It must be borne in mind that many tuberculous lesions will not produce abnormal physical signs. In other words, the absence of abnormal signs does not exclude tuberculosis.

c. Certain signs may arouse suspicion, but will be disregarded unless X-ray and other studies reveal evidence of disease. These are—

- (1) Slightly harsh breath sounds and slightly prolonged expiration over the right apex above the clavicle and the third thoracic spine and/or the same signs at the extreme left apex.
- (2) Slight alteration of the breath sounds anywhere in the chest, without other abnormal signs.
- (3) Clicks or crepitations which disappear after a few deep breaths or coughs.

56. Other examinations.—It may be necessary to postpone decision in some cases until special studies and adequate observations have been completed. For example, so-called atypical pneumonia in an upper lobe of the lung may simulate tuberculosis, but proper laboratory studies and another X-ray film and physical examination after 2 months usually suffice to make the differential diagnosis.

57. General service.—*a.* Calcified residuals of primary tuberculosis in the pulmonary parenchyma or hilum lymph nodes, provided the size, number, and character of such lesions

are not such as to suggest the possibility of reactivation. Well calcified masses in adult white subjects usually represent entirely healed lesions. Partially calcified and therefore presumably partially caseous masses in younger subjects, particularly in persons of other than the white race, are potentially hazardous. Clinical judgment is important in rendering a decision. In those cases in which a decision cannot be made on roentgenological grounds alone, it is essential that a careful examination be made by an examiner with special experience in tuberculosis, taking into account the age of the subject, history, and the possible presence of nonpulmonary tuberculosis.

b. Fibrous pleural scars and adhesions, revealed most often in the roentgenogram by simple thickening of the apical pleura, deformity of the dome of the diaphragm, or visualization of an interlobar fissure, provided there is no evidence of disqualifying tuberculosis of the pulmonary parenchyma.

c. Scars of operation for nontuberculous empyema which has been healed for 1 year or longer, provided the function of the lung is not significantly impaired, and provided no residue of the empyema other than some fibrous thickening of the pleura is evident upon X-ray and physical examination.

d. Healed fracture of the rib or ribs, provided the residual deformity, if any, does not interfere seriously with respiratory movements.

e. Benign tumor of the breast or of the chest wall, provided the mass does not interfere with the wearing of a uniform or military equipment.

f. Small palpable lymph nodes of the axilla which apparently are not evidence of disease.

g. The following conditions are temporarily disqualifying:

- (1) Acute bronchitis, until a final examination shows recovery without disqualifying sequelae.
- (2) So-called atypical or other types of pneumonia, until a final examination shows recovery without disqualifying sequelae. Ordinarily resolution, as shown by X-ray films, will be complete within 2 months. Other cause of the shadow in the X-ray film than pneumonia must be considered if complete clearing has not occurred in 3 months.
- (3) Acute or subacute fibrinous pleurisy, definitely nontuberculous in origin, until a final examination shows recovery without disqualifying sequelae. Pleurisy of this type is suspected or demonstrated on physical examination more frequently than on X-ray examination.
- (4) Recent fracture of a rib or ribs, until a final examination shows recovery with or without deformity and provided the residual deformity, if any, does not interfere seriously with respiratory movements.
- (5) Scarred fibroid or fibrocalcific infiltrative tuberculous lesions of the lungs represented in roentgenograms as *sharply demarcated, strand-like or well defined, small, nodular shadows not exceeding a total area of 5 square cm* may be accepted after deferment until subsequent examination clearly demonstrates that the lesion is stationary and not likely to be reactivated. The minimum period of time to determine this is 6 months. It must be recognized that either progression or regression of the lesion indicates instability. Clinical judgment, taking into consideration other factors, including age and race, must be exercised in estimating the likelihood of reactivation. Experience indicates a greater likelihood of reactivation of an apparently stable lesion in persons under 25 years of age than in older persons.

58. Limited service.—Deformity of clavicle, ribs, or scapula of a degree disqualifying for general military service but not preventing the individual from successfully following a useful vocation in civil life.

59. Nonacceptable.—*a.* Tuberculosis of the lungs or tracheobronchial lymph nodes except as defined in paragraph 57*a* and *g* (5). Small infiltrative tuberculous lesions, *unless*

of sharply defined linear or nodular appearance on roentgenograms, as described in paragraph 57g (5), are disqualifying even though involving a total area of less than 5 square cm and apparently stable over a period of 6 months.

b. Fibrinous or serofibrinous tuberculous pleurisy, and serofibrinous pleurisy of unknown origin. Inasmuch as pleurisy, with or without effusion, is a frequent manifestation of active tuberculosis, all persons who have apparently recovered from pleurisy will be examined with the greatest care. Authenticated history of pleural effusion of unknown origin within the last 5 years; chronic fibrous pleurisy sufficient to cause marked retraction of the chest wall and of the mediastinum or to cause a density in the roentgenogram which completely obscures a considerable section of the pulmonary fields.

c. Spontaneous pneumothorax, history of spontaneous pneumothorax within the last 3 years or history of repeated spontaneous pneumothorax, authenticated by properly dated X-ray films.

d. Empyema: residual sacculation or unhealed sinuses of the chest wall following operations for empyema.

e. Chronic bronchitis.

f. Bronchiectasis.

g. Bronchial asthma.

h. Bullous or generalized pulmonary emphysema.

i. Cystic disease of the lung.

j. Silicosis as represented in the roentgenogram by strandlike and nodular shadows; any other form of severe pulmonary fibrosis.

k. Abscess of the lung.

l. Active mycotic disease of the lung and residual cavitation due thereto.

m. Foreign body in the lung. An individual may be accepted after a foreign body has been removed from a bronchus, provided examination shows recovery without disqualifying sequelae.

n. Tumor of the trachea, bronchi, lung, pleura, or mediastinum.

o. Any malignant tumor of the breast or chest wall.

p. Tuberculosis of the ribs or of other parts of the chest wall.

q. Benign tumor of the breast or of the chest wall of such size and location as to interfere with the wearing of the uniform or military equipment.

60. General considerations.—*a. Tuberculosis.*—An alleged history of tuberculosis will not be considered a cause for rejection unless supported by objective evidence substantiating the claim. Examining physicians should make every effort to determine the validity of the alleged history by requesting the individual's X-ray films and a summary of the clinical record. This will be necessary only when the present chest X-ray film of an individual alleging a history of tuberculosis reveals no evidence of disqualifying defects. It should be recognized that in some instances moderately extensive pulmonary tuberculosis may resolve, leaving no residuals of disqualifying character or extent visible on X-ray examination. An authenticated history of active moderately or far advanced tuberculosis will be considered as disqualifying. An authenticated history of active minimal pulmonary tuberculosis within the past 5 years also will be considered as disqualifying. In those cases in which pulmonary tuberculosis has been previously diagnosed on the ground of subjective symptoms and of physical signs which are without pathological significance, the conclusions of examining physicians will be based on their own findings and their own evaluation of the cases.

b. Bronchiectasis.—Not infrequently a routine chest X-ray examination will reveal no obvious abnormalities even though bronchiectasis of marked degree is present. When the history or physical examination suggests the possibility of bronchiectasis, individuals should be held for study under the provisions of paragraph 5a and b.

SECTION XIV

HEART, BLOOD VESSELS, AND CIRCULATION

	Paragraph
History	61
Procedure	62
General service.....	63
Limited service.....	64
Nonacceptable	65
Electrocardiogram	66
X-ray	67
General considerations.....	68

61. History.—Questions will be asked during the course of the examination concerning past history of rheumatic fever, chorea, spells of rapid heart action, syphilis, and reaction to physical effort which may be helpful in the interpretation of the findings, but chief reliance will not be placed on the history alone.

62. Procedure.—The following procedure will govern in the physical examination of the heart. For the information of the examiners it is suggested that reference be made to the publication adopted and distributed by the American Heart Association entitled "The Nomenclature and Criteria for the Diagnosis of Diseases of the Heart."

a. Location of apex impulse and determination of character.

b. Auscultation of the heart sounds over apex, lower sternum, and second and third interspaces to right and left of sternum, noting accentuation of sounds, the presence of murmurs, rate and rhythm. Compare the heart rate with the radial pulse rate.

c. Inspection of root of neck and upper thorax followed by percussion of first interspace on each side of the manubrium for evidence of aneurysm.

d. Count of radial pulse, observation of the rhythm, and palpation of radial arteries for unusual thickening or high tension.

e. The blood pressure will be routinely measured. It will be determined with the subject in the sitting position. If orthostatic hypotension is suspected, the blood pressure will also be measured while the subject is standing. If the blood pressure appears to be abnormally high, it will be measured after the subject has rested in the recumbent position. When measured in other than the sitting position, a statement will be appended as to the position of the subject at the time of measurement.

f. Exercise (stepping 12 times briskly upon a common chair) will be used in selected cases to bring out significant heart murmurs but this test in itself is not to be considered a reliable estimate of the functional capacity of the heart.

g. If in doubt about an unexplained tachycardia, take the temperature. Fever that is sometimes not very obvious can account for otherwise unexplained tachycardia.

h. If there is doubt as to the presence of cardiovascular disease, the individual will be held for detailed reexamination.

63. General service.—*a.* A heart will be considered normal when the apex impulse is within the left midclavicular line and not below the fifth interspace; when sounds are normal and there are no thrills or important murmurs; when there is no abnormal pulsation or dullness above the base of the heart; when pulse rate is normal and regular and there is no unusual thickening of the arteries or significant elevation of blood pressure.

b. Given a heart of normal size, responding normally to exercise, a slight to moderate pulmonary systolic murmur, louder in the recumbent position and on expiration and largely or entirely abolished by deep inspiration, is the commonest of all murmurs and is to be considered physiological (functional). A faint systolic murmur localized at the aortic area without thrill and followed by a normal second sound may be considered normal, but any aortic systolic murmur of moderate intensity or louder probably indicates disease (for example, aortic dilatation or stenosis), and demands further study. A loud systolic murmur

(usually with thrill), maximal at the left of the sternum in the third and fourth spaces, suggests the probability of a congenital ventricular septal defect and is a cause for rejection. A faint systolic murmur at the apex, varying in intensity, with forced respiration, less well heard in the erect position than when recumbent and unattended by cardiac enlargement or other evidence of heart disease, or by a verified history of rheumatic fever, may be considered to be physiological (functional), but a moderate or loud apical systolic murmur which persists in all phases of respiration and body positions and is intensified by exercise is evidence of abnormality of the heart. Any diastolic murmur heard over any portion of the cardiac area is evidence of disease. The presystolic (or middiastolic) murmur of mitral stenosis may be confined to a small area at or just within the cardiac apex and heard only in the recumbent position (best in the left lateral decubitus and with the bell stethoscopic chest piece); it is accentuated by exercise. A slight aortic diastolic murmur, on the other hand, may be heard only along the left sternal border, with the patient erect or leaning slightly forward, best at the end of forced expiration; it is more easily heard with the Bowles stethoscopic chest piece. Frequently, interpretation must be based on cumulative evidence or a number of relatively slight deviations from the normal.

c. A pulse rate of 100 or over which is not persistent and not due to paroxysmal tachycardia. (A pulse rate of 100 or over may be temporary and due to excitement or to recent infection, such as pneumonia or local infections about the nose, mouth, and throat, or may be induced by drugs.)

d. A pulse rate of not lower than 50 per minute.

e. Sinus arrhythmia. (This consists in a quickening of the pulse rate during inspiration and a slowing during expiration and is best recognized with the individual recumbent and breathing deeply.)

f. Elevation of blood pressure from excitement, proved to be temporary.

64. Limited service.—There are no cardiovascular criteria to warrant initial selection for limited service.

65. Nonacceptable.—a. Circulatory failure evidenced by definite symptoms such as undue breathlessness, pain, and evidence of congestive failure (engorged neck veins, enlarged liver, edema, as well as dyspnea).

b. Hypertrophy and/or dilatation of the heart evidenced by displacement of the apex impulse to the left of the midclavicular line or below the sixth rib, and of a heaving or diffuse character, or by X-ray evidence.

c. A persistent heart rate of 100 or over when this is proved to be persistent in the recumbent posture and on observation and reexamination over a sufficient period of time, unless in the opinion of the medical examiner the increased cardiac rate is due to psychic reaction and not secondary to any disease condition, including infection.

d. Paroxysmal tachycardia if recurrent and disabling. See also section XXIII.

e. Heart block.

f. Any serious disturbance of rhythm such as auricular fibrillation.

g. Valvular disease.

h. Congenital heart disease.

i. Persistent blood pressure at rest above 150 mm systolic or above 90 mm diastolic. If the blood pressure reading is somewhat (10–20 mm) above 150 mm systolic on the first reading, it should be repeated after ½ hour's rest recumbent.

j. Thrombophlebitis of one or more extremities if there is a persistence of the thrombus or any evidence of circulatory obstruction in the involved vein or veins.

k. Other abnormalities of the peripheral vascular system, including large varicose veins, Raynaud's disease, Buerger's disease (thromboangitis obliterans), erythromelalgia, and arteriosclerosis. In doubtful cases special tests should be employed.

l. Aneurysm of any vessel.

m. Pericarditis.

n. Endocarditis.

- o.* True angina pectoris.
- p.* Authenticated history of coronary thrombosis, and/or myocardial infarction.
- q.* (1) Neurocirculatory asthenia (effort syndrome). Usual symptoms of this condition are exhaustion, breathlessness, heartache, and palpitation. These symptoms may follow exertion such as would not produce them in healthy individuals. These, and other symptoms such as dizziness or fainting, may arise without evidence of organic disease sufficient to account for the disability of the individual. Cases of effort syndrome may occur—
 - (*a*) As an accompaniment of organic heart disease.
 - (*b*) Following infections.
 - (*c*) In individuals with poor physique or insufficient training for the work required.
- (2) In some cases more than one of the above factors is present.
- (3) It is important to observe that neurocirculatory asthenia should not be confused with tachycardia alone or increased blood pressure alone or both together, although such conditions may be present with neurocirculatory asthenia. The diagnosis must be clear and based on the symptom complex.

r. Orthostatic hypotension or tachycardia.—The blood pressure and pulse rate will be taken with the individual in the recumbent position and after standing 3 minutes. An increase in pulse from normal in recumbent position to 120 beats per minute or more when the individual stands or a decrease of a normal blood pressure (when the individual is recumbent) to values less than 90 systolic and 60 diastolic when the individual stands may be considered evidence of a definite physiologic disturbance and in itself cause for rejection unless the condition is very temporary following an illness, operation, or exhausted state.

s. Acute rheumatic fever, or *verified* history of single or recurrent attacks of rheumatic fever within the previous 2 years.

66. Electrocardiogram.—The electrocardiogram is of great assistance in deciding the nature of certain cardiac abnormalities the most important of which are various arrhythmias, defects of conduction, and diseases of the myocardium. The following electrocardiographic findings may be considered to be within the normal range: a P-R interval and a QRS conduction time not exceeding 0.20 seconds and 0.10 seconds respectively; axis deviation not greater than -15 degrees left or $+105$ degrees right; a diphasic T wave in Lead 2 and/or a negative T wave in Lead 3; Q waves not greater than 3 mm in Leads 4R and 4F; R waves in Leads 4R and 4F not less than 4 mm and 2.5 mm respectively; and elevation of the RS-T segment in Leads 4R and 4F not to exceed 2 mm.

67. X-ray.—In doubtful cases, fluoroscopy or teleoroentgenography is advised to determine the size and shape of the heart and great vessels. Films should be taken at a distance of 2 meters. The total transverse diameter of the heart is the most useful measurement in estimating cardiac size. If this exceeds the predicted transverse diameter (calculated according to the Hodges-Eyster formula), by more than 1 cm, the heart is considered to be enlarged. In the case of certain short, thickset men a slightly greater figure may, at the discretion of the examiner, be regarded as within the range of normal, provided no other signs of cardiovascular disease are present. Films taken for the study of the lungs are not suitable for accurate estimation of the size of the heart.

68. General considerations.—*a.* It is incumbent upon examining physicians to—

- (1) Accept for service men with functional murmurs or other findings which do not indicate disease and do not impair the individual's ability to undergo severe bodily exertion.
- (2) Exclude from active service in the Army any individual affected with disease of the heart or blood vessels which impairs his ability to undergo severe bodily exertion. Although many men with compensated valvular heart disease are able to undergo severe bodily exertion, the question of aggravation in service, especially by activation of rheumatic carditis, is likely to arise and incidentally

to create a pension problem. Therefore, all individuals with valvular heart disease are to be regarded as unfit for service and will be rejected.

b. Men who desire to serve their country may, from patriotic motives, endeavor to conceal a known valvular lesion which has given no symptoms. On the other hand, men drafted for service may allege or feign symptoms to obtain exemption. Individuals may be expected to present physicians' certificates to substantiate the existence of valvular disease. Many of these may be given in good faith because of inadequate knowledge of the significance of certain physiological murmurs. Such certificates will not be accepted but examiners will satisfy themselves by their personal examinations as to the physical qualifications of individuals.

c. It is necessary therefore that the conclusions of the examining physician in doubtful cases be based on objective evidence in the widest sense, including physical signs, cardiac rhythm, measurement of blood pressure, and the observed effect of effort. Nevertheless, in the presence of questionable signs or symptoms, the verified history, especially of rheumatic fever, may be a factor in the final decision. No statement, however, will be accepted as proof of the existence of a cardiovascular defect unless supported by objective evidence.

d. It is the duty of examining physicians to protect the interest of the Government by preventing the entrance into the service of men whose circulatory systems may be expected to break down under the strain. It is also their duty to prevent the exemption or discharge of fit subjects because of unimportant deviations from the normal. They will exercise care in the interpretation of their findings and bear in mind constantly accidental murmurs and other departure from the supposed normal which may occur in perfectly healthy hearts.

SECTION XV

ABDOMINAL ORGANS AND WALL

	Paragraph
General service.....	69
Limited service.....	70
Nonacceptable	71
General considerations.....	72

69. General service.—*a.* Abdominal scars due to surgical operation or accident which show no hernial bulging.

b. Scar pain when found not associated with any disturbance of function of abdominal wall or contained viscera.

c. Splenic enlargement of mild degree unassociated with evidence of other disqualifying disease.

d. Small benign tumors of the abdominal wall.

e. Internal and external hemorrhoids, if mild in degree.

f. Relaxed inguinal ring provided there is no hernial sac present.

g. Hernia, small umbilical (patent umbilical ring).

h. History of cholecystectomy provided there are no residual disqualifying sequelae.

70. Limited service.—*a.* Hernia, inguinal, which has not descended into the scrotum; femoral.

b. There are no other defects of the abdominal organs or wall to warrant initial selection for limited service.

71. Nonacceptable.—Defects such as—

a. Hernia, inguinal, which has descended into the scrotum; recurrent; postoperative; ventral; umbilical, if moderate or large in size.

b. Acute or chronic cholecystitis with or without cholelithiasis, if diagnosis is confirmed by usual laboratory procedures or authentic medical history.

c. Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures or authentic history of gastric or duodenal ulcer.

- d.* Authenticated history of surgical operations for gastric or duodenal ulcer.
 - e.* Authenticated history of true intestinal obstruction of any kind.
 - f.* Sinuses of the abdominal wall.
 - g.* Stricture or prolapse of the rectum.
 - h.* Fistula in ano.
 - i.* Enlargement of the spleen associated with leukemia, Hodgkin's disease, splenic anemia, or other disqualifying disease; great enlargement of the spleen from any cause.
 - j.* External hemorrhoids sufficient in size to produce marked symptoms. Internal hemorrhoids if large or accompanied with hemorrhage, or protruding intermittently or constantly.
 - k.* Megacolon, diverticulitis, ileitis, and ulcerative colitis.
 - l.* Absence of one kidney.
 - m.* Splenectomy for any cause, other than trauma or congenital hemolytic icterus.
 - n.* Cirrhosis of the liver.
72. General considerations.—*a.* When necessary to confirm a diagnosis, examining physicians will avail themselves of fluoroscopy and roentgenography.
- b.* When examining physicians are able to command hospital facilities and the necessary diagnostic apparatus, they will, within their discretion, use test meals and chemical and microscopic examination of the stomach contents and stools.
- c.* Examining physicians will make use of digital rectal examination of defects referable to that region and, when necessary, proctoscopy will also be utilized.
- d.* Individuals who are found to have parasites or their eggs in stools will have this condition indicated on report of examination.
- e.* Moderate impulse produced by cough at the inguinal, femoral, or umbilical ring, or at the site of a scar is not necessarily indicative of hernia.
- f.* In cases of suspected gastric or duodenal ulcer every effort will be made to obtain a trustworthy history, including authentic medical records.

SECTION XVI

VENEREAL DISEASES

General service.....	Paragraph 73
Limited service.....	74
Nonacceptable	75
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73. General service.—*a.* Gonorrhea, uncomplicated, acute, or chronic.
- b.* Syphilis, except cardiovascular, cerebrospinal, or visceral.
- c.* Chancroid, uncomplicated.
74. Limited service.—There are no venereal disease criteria to warrant initial selection for limited service.
75. Nonacceptable.—*a.* Stricture of the urethra, severe.
- b.* Gonorrheal arthritis.
- c.* Other complications of gonorrhea, including acute prostatitis, seminal vesiculitis, and epididymitis.
- d.* Cardiovascular, cerebrospinal, and visceral syphilis.
- e.* Granuloma inguinale.
- f.* Lymphogranuloma venereum (active).
76. General considerations.—Examination for the detection of venereal disease will include inspection of the skin and genitalia for lesions; cardiac and neurological examination to detect late complications of syphilis; blood serological test for syphilis, and in individuals with latent syphilis, spinal fluid tests.

SECTION XVII

GENITO-URINARY ORGANS

	Paragraph
General service.....	77
Limited service.....	78
Nonacceptable.....	79
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77. General service. *a.* Mild albuminuria without casts which is proved by observation and repeated examination to be temporary in character or orthostatic in type.

b. Absence of one testicle unless removed on account of malignant disease or tuberculosis.

c. Undescended testicle which lies within the abdominal cavity.

d. Varicocele of moderate size.

e. Hydrocele of moderate size.

f. Epispadias or hypospadias, if mild in degree.

g. History of unilateral renal calculus with freedom from symptoms and if the X-ray is negative for calculi.

h. Phimosis.

78. Limited service.—*a.* Stricture of the urethra unless severe.

b. Floating kidney. (Floating kidney is one which is freely movable.)

79. Nonacceptable. *a.* Acute or chronic nephritis.

b. Stricture of the urethra, severe.

c. Urinary fistula or incontinence.

d. Acute or chronic infections of the kidney.

e. Absence of one kidney.

f. The presence of renal calculus, or a substantiated history of bilateral renal calculi at any time.

g. Chronic pyelitis.

h. Hydronephrosis or pyonephrosis.

i. Tumors of the kidney, bladder, or testicle.

j. Chronic cystitis.

k. Amputation of the penis, if the resulting stump is insufficient to permit normal function of micturition.

l. Hermaphroditism.

m. Hypertrophy of the prostate gland with urinary retention.

n. Epispadias or hypospadias when urine cannot be voided in such a manner as to avoid soiling of clothing or surroundings, or when accompanied by evidence of chronic infection of the genito-urinary tract.

o. Bed wetting, if substantiated by physician's affidavit or by other acceptable documentary evidence.

p. Varicocele, if large.

q. Hydrocele, if large.

r. Undescended testicle which lies within the inguinal canal.

80. General considerations.—*a.* Routine urinalysis to include determination of specific gravity and the absence or presence of albumin and sugar will be done on all individuals. Microscopic study of the urine will be done when indicated. Examining physicians should require examinees to void the urine in their presence. It must be emphasized here that prior to voiding the examinee must be examined for the presence of venereal disease. When albumin and/or casts are found in the urine, urinalysis should be repeated not less than twice a day on 2 or more successive days. If the urine shows albumin and/or casts and this condition of the urine is associated with enlargement of the heart, high-blood

pressure, and other evidences of cardiovascular-renal disease, the diagnosis of chronic nephritis may be made immediately. If the presence in the urine of albumin and/or casts is proved to be inconstant and if the condition is unassociated with evidence of cardiovascular and/or renal disease, decision should lie within the judgment and discretion of the examining physicians. When blood is found in the urine a thorough study will be made to determine the underlying cause.

b. When it is deemed necessary, examining physicians will employ X-ray facilities to verify diagnosis of defects of the genito-urinary organs.

SECTION XVIII

ENDOCRINE AND METABOLIC DISORDERS

	Paragraph
General service-----	81
Limited service-----	82
Nonacceptable-----	83

81. General service.—*a.* Simple colloid goiter, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment. See paragraph 49c.

b. Fröhlich's syndrome, if mild in degree.

82. Limited service.—*a.* Fröhlich's syndrome, if moderate in degree.

b. Pellagra, beriberi, scurvy, sprue, and other nutritional deficiencies, if mild and remediable by diet and appropriate treatment.

83. Nonacceptable.—*a.* Toxic goiter. (It should be remembered that malingerers may use thyroid medication to produce many of the symptoms of thyrotoxicosis.)

b. Simple goiter with definite pressure symptoms or so large in size as to interfere with wearing a uniform or military equipment.

c. Cretinism.

d. Myxedema, spontaneous or postoperative (with clinical manifestations and diagnosis not based solely on low basal metabolic rate).

e. Gigantism or acromegaly.

f. Fröhlich's syndrome, if severe.

g. Hyperparathyroidism and hypoparathyroidism when the diagnosis is supported by adequate laboratory studies.

h. Addison's disease.

i. Diabetes mellitus. If sugar is found in the urine, further specimens should be voided in the presence of the physician or authorized assistant, and on more than one occasion. In doubtful cases the fasting blood sugar should be determined. Consideration will be given to authentic medical records indicating the existence of diabetes mellitus.

j. Diabetes insipidus. (Before diabetes insipidus is diagnosed, malingering by drinking large quantities of water will be excluded.)

k. Persisting glycosuria.

l. Nutritional deficiency diseases (including sprue, beriberi, pellagra, and scurvy) which are severe or not readily remediable or in which the permanent pathological changes have been established.

m. Gout.

n. Simmonds' disease; Cushing's syndrome; other diseases due to a disorder of the pituitary gland.

o. Hyperinsulinism when established by adequate investigation and if regarded by the examiners as of sufficient degree to disqualify for military service.

SECTION XIX

DISEASES OF BLOOD AND BLOOD-FORMING TISSUES

	Paragraph
General service-----	84
Limited service-----	85
Nonacceptable-----	86

84. General service.—*a.* Secondary anemia, mild, due to easily remediable causes.

b. Malaria, acute or chronic, mild.

85. Limited service.—There are no diseases of this group which warrant initial selection for limited service.

86. Nonacceptable.—*a.* Hemophilia.

b. Thrombocytopenic purpura.

c. Pernicious anemia.

d. Aplastic anemia.

e. Hemolytic ictero-anemia (hemolytic jaundice).

f. Splenic anemia.

g. Polycythemia vera.

h. Leukemia, acute or chronic, of any type.

i. Malaria, chronic, if more than mild.

j. Sickle cell anemia.

k. Hodgkin's disease.

SECTION XX

NEUROLOGICAL DISORDERS

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Methods of examination-----	87
General service-----	88
Limited service-----	89
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Diagnostic criteria-----	91

87. Methods of examination.—*a.* In order to detect the presence of certain common neurological diseases, particularly epilepsy, postencephalitic and posttraumatic syndromes, multiple sclerosis, drug addiction, and hysteria, information regarding the life history of the individual is essential. Therefore, a history will be obtained relative to convulsions, fainting spells, attacks of unconsciousness, routine use of any medicines, hospitalization, severe head injury, and educational and occupational history.

b. The neurological examination will be conducted as follows: The individual will be examined stripped. He will walk a straight line at a brisk pace with his eyes open, stop, and turn around. He will then return in the same manner with his eyes closed, stop, and turn around. Look for spastic, ataxic, incoordinate or limping gait; absence of normal associated movements; deviation to one side or the other; the presence of abnormal involuntary movements; undue difference in performances with the eyes open and closed. The individual will then stand erect, feet together, arms extended in front. Look for unsteadiness and swaying, deviation of one or both of the arms from the assumed position, tremors or other involuntary movements. With eyes closed he will then touch his nose with the right and then the left index finger. Look for ataxia, tremors, overshooting, particularly at the end of the movement. Examine joint and spine movements and muscle condition. Look for muscular atrophy or pseudo-hypertrophy muscular weakness, limitation of joint movement and spine stiffness. As to pupils, look for irregularity, inequality, diminished or absent contraction to light; movements of eyes, facial muscles, and tongue. Look for strabismus,

ptosis, sustained nystagmus, tremors of retracted lips, asymmetry or tremors of face or tongue. Sensation will be examined by pricking lightly each side of the forehead, bridge of nose and chin, across the volar surface of each wrist, and dorsum of each foot. Look for inequality of sensation right and left. If these sensations are abnormal, vibration sense should be tested at ankles and wrists by tuning fork. With the eyes closed, he will run each heel from the opposite knee to the ankle. Test sense of movement of great toes and thumb. Look for diminution or loss of vibration and sense of position, and ataxia. Knee jerks and plantar reflexes should be tested. When indicated, appropriate laboratory tests and X-ray examinations will be made.

88. General service.—These registrants present—

- a. A healthy nervous system as manifested by absence of signs of disease of the brain, spinal cord, cranial and peripheral nerves.
- b. Certain variations clearly within physiological limits such as minor tremors.
- c. Inconsequential paralyses such as those resulting from poliomyelitis or lesions of the peripheral nerves not likely to interfere with military duties.

89. Limited service.—Individuals with local paralyses such as those due to poliomyelitis or nonprogressive disease of the peripheral nerves of such degree that they disqualify for general military service but have not interfered with locomotion and have not prevented the individual from successfully following a useful vocation in civil life are acceptable for limited service.

90. Nonacceptable.—Any serious neurological disorders such as—

- a. Neurosyphilis of any form (general paresis, tabes dorsalis, meningovascular syphilis).
- b. Degenerative disorders (multiple sclerosis, encephalomyelitis, cerebellar and Friedreich's ataxia, athetoses, Huntington's chorea, muscular atrophies and dystrophies of any type; cerebral arteriosclerosis).
- c. Residuals of infection (moderate and severe residuals of poliomyelitis, meningitis and abscesses, paralysis agitans, postencephalitic syndromes, Sydenham's chorea).
- d. Peripheral nerve disorder (chronic or recurrent neuritis or neuralgia of an intensity which is periodically incapacitating, multiple neuritis, neurofibromatosis).
- e. Residuals of trauma (residuals of concussion or severe cerebral trauma, posttraumatic cerebral syndrome, incapacitating severe injuries to peripheral nerves).
- f. Paroxysmal convulsive disorders and disturbances of consciousness (grand mal, petit mal and psychomotor attacks, syncope, narcolepsy, migraine).
- g. Miscellaneous disorders (tics, spasmodic torticollis, spasms, brain and spinal cord tumors, operated and unoperated, cerebro-vascular disease, congenital malformations, including spina bifida if associated with neurological manifestations and meningocele even if uncomplicated, Meniere's disease).

91. Diagnostic criteria.—The following brief summary of diagnostic criteria is intended as a general guide for examiners. It includes the common manifestations of the more usual neurological disorders, but it is not intended to cover all diagnostic criteria or all neurological disorders.

a. *Syphilis of central nervous system.*

- (1) *General paresis or meningoencephalitic syphilis.*—Look for unequal, irregular, or sluggishly reacting pupils or Argyll-Robertson pupil; facial tremor; speech defect in test phrases and in the slurring and distortion of words in conversation; writing defects consisting of omissions and distortions of letters; defective memory; discrepancies in relating facts of life; inability to perform quickly and accurately simple problems of addition and subtraction in mental arithmetic. Knee jerks may be normal or overactive or underactive. The mood may be apathetic, depressed, or euphoric; other psychiatric symptoms may be of a schizophrenic or neurasthenic type.

(2) *Meningo-vascular or cerebrospinal syphilis*.—The prominent diagnostic signs and symptoms are headaches, history of mood changes or convulsions, varying deep and superficial reflexes, pupillary changes, ptosis, ocular palsies, and facial paresis. The mental state is normal, dull, or apathetic. Motor weakness may occur on one side of the body or in one extremity.

(3) *Tabes dorsalis (locomotor ataxia)*.—Look for unequal, irregular, or sluggishly reacting pupils or Argyll-Robertson pupil; absent knee jerks; positive Romberg; ataxic gait, especially when the eyes are closed; hypotonia; and anesthetic areas of the skin. The history, usually of slow progression, may show failing sexual power or sphincter disturbances and pains in the legs or back, usually an irregular series of short, identical attacks of pain coming at intervals.

b. Multiple sclerosis.—A history of transitory weakness, numbness, ataxia of one or more extremities, transient diplopia, scotomata or bladder disturbances should arouse a suspicion of multiple sclerosis. The presence of optic atrophy, scotomata, definite nystagmus, corneal hypoesthesia, absence or irregularity of abdominal reflexes, exaggerated deep reflexes, a Babinski or similar signs, or ataxia and euphoria are common manifestations.

c. Muscular dystrophies.—There is atrophy of the muscles in some forms, hypertrophy in others and, in general, decrease or loss of muscle power. In the pseudohypertrophic form some muscles are atrophied, others hypertrophied. In myasthenia gravis there is rapid fatigue of muscle power, appearing first in the facial and extrinsic eye muscles and later becoming generalized.

d. Athetosis, dystonia, torticollis, chronic chorea.—These are names given to various types of irregular, intermittent, involuntary movements, affecting various parts of the body, often associated with evidence of spastic paralysis. Simulation is possible and in doubtful cases previous medical records should be sought. Even mild manifestations disqualify.

e. Paralysis agitans.—Paralysis agitans is recognized by frozen facies, unwinking stare, rigidity of the muscles, stooped posture, slowness of movement, tremors, slow, monotonous speech, and typical gait. It may be unilateral. A history of encephalitis or influenza is obtained in only about one-half the cases. Even mild manifestations disqualify.

f. Multiple neuritis.—This may be associated with the dietary deficiencies, infection, or intoxication. The symptoms depend upon the cause and duration. They consist of pain, various combinations of diminution or loss of motor power most marked in the distal part of the extremities, sensory diminution or loss, tenderness of the muscles and nerves, loss of diminution of reflexes.

g. Chronic neuralgias.—A history of severe constant or recurrent pain, confined to the area of distribution of a single nerve or segment, without objective changes, suggests this diagnosis. Clearly defined entities are sciatic and trigeminal neuralgias. Less common are suboccipital, brachial, and glossopharyngeal neuralgias. Neuralgias of other nerves are extremely rare and the diagnosis will be made with extreme caution. Neuritis, arthritis, bursitis, sinusitis, and also hysteria and malingering must be considered in differential diagnosis. Evidence of previous treatment and the injection of procaine into the nerve presumably affected are important diagnostic aids.

h. Post-traumatic cerebral syndrome.—A history of head injury followed by headache, dizziness, loss of initiative, or change of personality is suggestive, but independent confirmation of such alterations should be sought if possible. A dull apathetic expression, slight nystagmus, fine tremors, vasomotor changes, or abnormal sweating, are confirmatory evidence. If the syndrome is definite, even though mild, the individual should be rejected. The presence of signs indicating a focal lesion, even though mild, is also cause for rejection.

i. Paroxysmal convulsive disorders.—Look for deep scars on tongue, face, and head. Since no physical findings are pathognomonic, it is necessary to discover if the individual had had spells of unconsciousness, convulsions, "fits," "falling out," "spells," "lapses," "dizziness," or "fainting." The individual will be disqualified on a verified history of such

spells or of multiple attacks of loss of consciousness, especially with incontinence or twitching, or of frequent momentary episodes of being dazed, or of uncontrollable outbursts of rage or irrational conduct, or fugues, or treatment with anticonvulsive drugs over a long period of time. Such a history will be verified, if practicable, by a confirmatory medical record from a trustworthy source. The electroencephalograph is of great assistance in diagnosis, particularly in doubtful cases, but will not be used routinely. When a registrant is rejected for epilepsy, a statement will be made by the examining board giving the basis for the diagnosis. When the diagnosis is based wholly on the registrant's statement, in the absence of stigmata or a verified history, it will be so stated. It should be remembered that the epileptic may attempt to conceal his defect in order to gain entrance to the military service.

j. Cerebral vascular accidents.—Characteristically, the onset is acute, with or without unconsciousness. Almost any focal disturbance may result. Evidence of peripheral arterial disease may be inconspicuous. The diagnosis disqualifies.

SECTION XXI

PSYCHOSES, PSYCHONEUROSES, PERSONALITY DISORDERS

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General service.....	95
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92. General considerations.—The detection of disorders of the personality is often most difficult and the general fitness of the individual for military life should be considered at the end of the medical investigation. The key to the proper evaluation of each individual is the knowledge that military life is rigorous and makes special demands on the individual. To be effective, a man must have the capacity for sustained duty in the face of separation from home, regimentation, lack of privacy, extremes of climate, hunger, exhaustion, and the threat of bodily injury, and should be judged with this in mind. Since experience has shown that mentally defective and unstable individuals form weak points in the military organization and often break down under stress, endangering the lives of others as well as the national security, they will not be accepted. Each examiner will constantly be on the alert throughout his contact with the individual to detect any sign of such disorders and will promptly report suspicious symptoms he may note to the chief examiner. See paragraph 2*b*.

93. Routine procedure.—*a*. The diagnosis of most psychiatric disorders depends in the first place upon the examiner's estimate of the person's behavior and response to the situation of the examination and in the second place upon an adequate history, supplemented if necessary by information gathered from the individual's own physician, courts, hospitals, social service, or welfare agencies, etc.

b. Attention will be given to whether the individual wants to be in the Army and thus may have a tendency to minimize his defects or whether he wants to remain in civilian life and thus may have a tendency to exaggerate.

c. Routinely, examiners will be on the watch for any of the following personality deviations: Inability to understand and execute commands promptly and adequately, abnormal negativistic attitude, abnormal anxiety, silly inappropriate laughter, instability, seclusiveness, sulkiness, sluggishness, discontent, lonesomeness, depression, shyness, suspicion, overboisterousness, timidity, personal uncleanness, stupidity, dullness, resentfulness

to discipline, a history of nocturnal incontinence, sleeplessness, lack of initiative and ambition, sleep-walking, recognized queeriness, suicidal tendencies, either bona fide or feigned, and homosexual proclivities.

d. Abnormal autonomic responses (fainting, blushing, excessive sweating, shivering, or gooseflesh, excessive pallor, or cyanosis of the extremities) are also occasionally significant. Note also the lack of such normal anxiety or autonomic responses as might reasonably be expected under the circumstances.

94. Minimum psychiatric examination.—*a.* Mental and personality difficulties are most clearly revealed in the subject's behavior toward those with whom he feels relatively at ease. The most successful approach is often one of straightforward professional inquiry coupled with real respect for the individual's personality and due consideration for his feelings, which does not mean diffidence.

b. The psychiatric examination will be made outside of easy hearing of other men. Matter of diagnostic significance is often concealed when the individual feels that he must be impersonal and give replies that will not impress listeners with his peculiarity.

c. Questioning will begin with something that is obviously relevant to the immediate situation. One tries to elicit the difficulties which the individual has been experiencing in his relations with others and himself in his work and in his spare time activities. The examiner pays close attention to content and implication of everything said and to any other clues and, in a matter-of-fact manner, follows up whatever is not self-evidently commonplace.

d. The probable presence of some types of psychiatric disorders, in particular the major psychoses and marked degrees of feeble-mindedness, may often be suspected by alert observation of the individual's behavior if the examiner knows what to look for and what to regard as significant. In other cases one would not be able to suspect the presence of any morbid condition without some knowledge of the individual's history.

95. General service.—*a.* The range of personalities usually classed as normal. Evidence of ability to get along tolerably with family, friends, casual acquaintances, authorities in school or society, employers, and fellow workers. Conventional attitude toward sexual problems. Sufficient intelligence to graduate from grammar school unless prevented by external circumstances. Sufficient stability and ability to obtain and keep, or at least to seek, a job.

b. Marginal intelligence, if compensated for by better than average stability.

c. Men whose speech can be readily understood, even though there is a moderate degree of stuttering or stammering, if otherwise physically, intellectually, and emotionally fit.

96. Limited service.—Stuttering and stammering of a degree disqualifying for general military service but which has not prevented the man from successfully following a useful vocation in civil life.

97. Nonacceptable.—Individuals who are found to have any serious mental or neurological disorder such as—

a. Mental deficiency.

b. Psychosis.

c. Psychoneurosis.

d. Psychopathic personality.

e. Alcoholism and drug addiction.

f. Primary behavior disorder of sufficient degree to indicate predisposition to more serious disorders.

g. Syphilis of the central nervous system.

98. Diagnostic criteria.—*a.* *Mental deficiency.*

(1) Manifested by lack of general information concerning native environment; inability to learn, to reason, to calculate, to plan, to construct, and to compare weights; defect in judgment, foresight, language, output of effort; suggestibility,

untidiness, lack of personal cleanliness, anatomical stigmata of degeneration, muscular awkwardness. History of school life, vocational career, and disciplinary report will assist materially.

- (2) Examiners will use extreme care and judgment in reporting their findings on enlistment records. Such terms as "imbecile" and "moron" will not be used. Elaborate psychometric estimation is not necessary. Intelligence cannot be definitely estimated and there is no test that is infallible. They are all only approximations and must be evaluated only in conjunction with accompanying factors and circumstances. A diagnosis of mental deficiency will be based on the results of objective tests interpreted in the light of the above considerations. Illiteracy *per se* is not to be classified as mental deficiency.

b. Psychosis.

- (1) *Schizophrenia (dementia praecox).*—This mental disorder is manifested by obscurely motivated peculiarities of behavior and thought. Of these, the so-called hebephrenic type is the most obvious. More difficult to identify is the simple type. These are the numerous shiftless, untidy, perhaps morose, sometimes nomadic individuals who have had what was regarded as a normal childhood. Somewhere between the ages of 12 and 25 they underwent a change, acute or insidious, with dilapidation of their social interests and the habits in which they had been trained. They may or may not have received treatment in hospitals for mental disease. The paranoid type is another large division. These persons cling to fantastic beliefs in their overwhelming importance, and often feel that people are persecuting them or otherwise interfering with their career or well-being. Some of them believe that they are in communion with supernatural beings. Others believe that they are victims of plots, secret organizations, spy rings, or religious or fraternal groups. They are often plausible in supporting these delusions by clever misinterpretation of facts. Some of them are very evasive and skillful at concealing the pattern of their disorder. A morbid suspiciousness of anyone who takes an interest in them is frequent. They may become tense and hateful when interrogated. An attitude of unusual cautiousness or suspiciousness toward the examining physician or toward fellow individuals should suggest the possibility that the individual may be paranoid. The catatonic states present great difficulty in diagnosis. Perhaps the only sign of these conditions is the impression of queerness which the person makes on anyone who seeks to get acquainted with him. The actual oddities of behavior or thought may be subtle; it may be difficult, in retrospect, to point to any particular instances of the unusual. The most striking signs of these conditions may in fact come out in connection with the physical examination. The physician, at some state of the physical examination, may observe a peculiar reaction which upon questioning may awaken a suspicion of a prepsychotic state. These individuals frequently entertain unfounded convictions as to bodily peculiarities or disorders which they attribute to excessive sexual acts of one sort or another. These beliefs, sometimes hard to elicit, are often medically incredible and bizarre. Questioning them on intimate personal matters often leads to great embarrassment, confused speech, or actual blocking of thought, so that they do not know what to say. Get history of family life and of school, vocational, and personal career.
- (2) *Manic-depressive psychosis.*—Major abnormalities of mood are shown by episodes of unreasonable elation or depression which have tended to recur without obvious connection with events. People who are known to be so mercurial in their reactions that their judgment is seriously impaired during the up or down swing of their moods will be rejected. Individuals known to have received medical or nursing care because of a morbid excitement or a depression will be rejected.

(3) *Other types.*—Psychosis of other types, involutional melancholia, toxic psychosis, paranoia, are encountered rarely at induction and will be rejected.

(4) *History.*—Reliable history of commitment to a mental hospital will be cause for rejection.

c. *Psychoneurosis.*—Individuals suffering from acute psychoneurosis at the time of examination or with evidence of chronic psychoneurosis (neurotic personality) are to be rejected. These individuals react inappropriately to difficulty. They may have done well in civilian life but tend to be anxious, selfconscious, oversensitive, and emotionally dependent on other people. In evaluating the signs and symptoms, particularly the psychosomatic phenomena, it is important to keep in mind that sometimes they may be transient reactions to the examination and concern over the likelihood of induction and Army service. Important factors in the diagnosis of a clinical psychoneurosis are a definite history of previous psychoneurotic episodes and/or the persistence of psychoneurotic reactions, which were, at least, in some degree disabling to the individual in his civilian life.

(1) *Types of signs and symptoms.*—Signs and symptoms fall in the following types:

(a) Anxiety, manifested by subjective and objective evidence of apprehension and worry.

(b) Neurasthenia, excessive concern with minor or functional bodily ailments as manifested by multiple vague complaints, multiple operations for obscure disorders, unusual fatigability, vague pains, pressure feelings, distorted head sensations; excessive concern over health and function of bodily organs.

(c) Hysteria, conversion symptoms such as hysterical fits, deafness, blindness, or loss of voice; hysterical paralyses or anesthetics; dissociations such as amnesia, absences, trances.

(d) Psychasthenia, obsessions, compulsions, phobic manifestations such as specific terrors of harmless objects or situations, food phobias, dirt and germ phobias, inflexible rituals of behavior about food, sleeping, dressing, compulsive acts, obsessional thoughts and obsessional indecision.

(e) *A reactive depression* is a depression which may be severe, and with suicidal trends and which is a reaction to adverse and serious environmental situations. It persists for fairly long periods of time and is definitely more than a "blue spell." The patient is apt correctly to regard the disturbing environmental situation as responsible for the depression.

(f) Mixed types.

(2) *Physical disorders which may furnish important clues to psychoneurotic disabilities.*—Neurotic tensions may be manifested not only by frank psychoneuroses and behavior difficulties but also by manifestations of a variety of physical disturbances and organic disease processes. Such conditions as peptic ulcer, pylorospasm, mucous colitis, spastic constipation, neurocirculatory asthenia, paroxysmal tachycardia, vascular hypertension and hypotension. Raynaud's disease, fainting, convulsions, somnambulism, narcolepsy, migraine, glaucoma, eczema, psoriasis, enuresis, cardiospasm, impotency, and asthenia may have important emotional components and may therefore furnish important clues to the neurotic aspects of the individual. The presence of such conditions, if not in themselves disqualifying, should always lead to further study. Look for a close relationship.

d. *Psychopathic personalities.*—In this ill-defined, more or less heterogeneous group are placed those individuals who, although not suffering from a congenital defect in the intellectual sphere, do manifest a definite defect in their ability to profit by experience. They are unable to proceed through life with any definite pattern of standardized activity. They are unable to respond in an adult social manner to the demands of honesty, truthful-

ness, decency, and consideration of their fellow associates. They are emotionally unstable, not to be depended upon; act impulsively with poor judgment; are always in difficulties, have many and various schemes without logical basis, lack tenacity of purpose, are easily influenced and oftentimes in conflict with the law. They do not take kindly to regimentation and are continually at variance with those who attempt to indoctrinate them in the essentials of military discipline. Such an individual has a decided influence upon his fellow associates and the morale of his organization, for he will not conform himself to organized authority and he derives much satisfaction in cultivating insubordination in others. Quite frequently he presents a favorable impression, is neat in appearance, talks well, and is well mannered. However, under this veneer the real defect is evident by past irresponsiveness to social demands and lack of continuity of purpose. Among this general group are three main types:

- (1) Psychopathic personality with pathologic sexuality. This may include many homosexuals and cases of sexual perversion. Persons habitually or occasionally engaged in homosexual or other perverse sexual practices are unsuitable for military service and will be excluded. Feminine bodily characteristics, effeminacy in dress or manner, or a patulous rectum are not consistently found in such persons, but where present should lead to careful psychiatric examination. If the individual admits or claims homosexuality or other sexual perversion, he will be referred to his local board for further psychiatric and social investigation. If an individual has a record as a pervert he will be rejected.
- (2) Psychopathic personality with emotional instability. This includes the inadequate personalities. Those individuals who do not show the patterns of psychoneurosis or psychosis but do not have personality traits which enable them to make a satisfactory adjustment owing to introversion, eccentricity, impracticalness, or vagrancy.
- (3) Psychopathic personality with asocial and amoral trends. This includes the grotesque and pathological liars, petty offenders, swindlers, kleptomaniacs, pyromaniacs, alcoholics, and likewise those highly irritable and arrogant individuals, so-called "guardhouse lawyers," who are forever critical of organized authority and imbued with feeling of abuse and lack of consideration for their fellowmen.
- (4) All such men should be excluded from the service as far as possible, both because of the difficulties which these symptoms themselves cause and because of the fact that these individuals are predisposed to psychoneurotic and psychotic states.

c. Chronic alcoholism and drug addiction.—

- (1) *Chronic alcoholism.*—An individual will be regarded as a chronic alcoholic if he habitually uses alcohol to the point of social or physical disablement, as evidenced by loss of job, repeated arrests, or hospital treatment because of alcoholism. Such a history, if obtained, should be verified. Look for suffused eyes, prominent superficial blood vessels of nose and cheek, flabby bloated face, red or pale purplish discoloration of mucous membrane of pharynx and palate; muscular tremor in the protruded tongue and extended fingers, tremulous handwriting, emotionalism, prevarication, suspicion, auditory or visual hallucinations, persecutory ideas.
- (2) *Drug addiction.*—An individual will be regarded as a drug addict if he is or has recently been a habitual user of any of the opium preparations, cocaine, or cannabis indica (marijuana). A history of arrests for narcotic law violation is important; recent needle marks are suggestive; discolorations along the line of blood vessels on the arms, or scars from needle abscesses on the arms, shoulders, buttocks, or thighs are very important evidence but are not always present. The condition of the pupils is not important in active addicts.

f. Primary behavior disorders.—These may or may not be cause for rejection depending upon their severity. They are cause for rejection either because they indicate predisposition to more serious mental disorder or because the symptom itself interferes with military efficiency. These disorders fall into the following groups:

- (1) *Simple adult maladjustment.*—These individuals show evidence of tension and anxiety not serious enough to be classified as psychoneurosis and clearly caused by situational difficulties.
- (2) *Neurotic traits.*—Tics, habit spasms, somnambulism, overactivity, fears either present at time of examination or in the individual's history, though not in themselves disabling may indicate predisposition to serious mental disorder on exposure to stress.
- (3) *Enuresis.*—This is a cause for rejection if of sufficient degree to cause sanitary difficulties for men living in close quarters. History of bed-wetting since childhood may indicate predisposition to psychiatric disorder. A verified history will be obtained. See paragraph 111.
- (4) *Emotional immaturity.*—Certain individuals have no defect of personality but are too inexperienced or too dependent on family ties to function effectively in the armed forces.
- (5) *Stammering and stuttering.*—Cause for rejection if of such a degree that registrant is unable to express himself clearly or to repeat commands.

SECTION XXII

INTELLIGENCE

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99. General considerations.—Minimum intelligence requirements for military service are prescribed to insure that only men capable of absorbing training within reasonable limits of time will be inducted. Factors of intelligence measured by prescribed Army tests are not necessarily those measured by other tests of intelligence; therefore, intelligence tests other than authorized Army tests will not be used. Concepts such as *mental age* and *intelligence quotient* are not applicable to results achieved on Army tests, and will not be used to describe the mental level of individuals being tested. Further, since intelligence, rather than education, is the criterion used to determine the trainability of an individual, references to the educational level attained by an individual are irrelevant when used to describe the level of intelligence.

100. General service.—Individuals who are graduates of standard English-speaking high schools are acceptable. Individuals who are not graduates of standard English-speaking high schools will be given prescribed objective tests of intelligence. A man achieving the critical score or a higher score on one or more of the authorized tests is acceptable for induction.

101. Limited service.—There are no intelligence criteria to warrant initial selection for limited service.

102. Nonacceptable.—Failure of a nongraduate of a standard English-speaking high school to achieve a score on one or more of the prescribed tests equal to or higher than the critical score will be accepted as evidence of low intelligence. Such persons are nonacceptable.

SECTION XXIII

PURPOSELY CAUSED PHYSICAL DEFECTS

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Report of apparently purposely caused defects..... 103

103. Report of apparently purposely caused defects.—Whenever it appears to an examining physician that an individual is suffering from self-inflicted or purposely caused physical defects which under the standards of physical examination prescribed herein would render him disqualified for military service of any kind, a full statement of the facts and of the condition of the individual and of the examining physician's recommendation will be prepared and submitted to the Director of Selective Service.

SECTION XXIV

MALINGERING

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104. Definition.—The malingerer is one whose complaints of bodily disorders and whose behavior or acts are in simulation of some physical or mental disease for the definite purpose of attaining a particular end which is more satisfactory to him or of seeking an escape from a fear-infested situation. Malingering is encountered in a number of situations but most frequently during the preliminary examinations and early training periods of military service. The simulation of neuroses and of physical disorders includes a wide variety of problems which must be differentiated from the ordinary neuroses as well as from physical illnesses. However, simulation is always in keeping with the extent of the knowledge possessed by the individual regarding the particular disorder from which he pretends to suffer and therefore constantly changes its methods and its maladies. A person gifted with histrionic talent and who has a considerable degree of knowledge and skill at his command may be able to simulate physical or mental conditions to such perfection that physicians may sometimes be deceived.

105. Differentiation.—*a.* For a disorder to be classed as *true* malingering, it must fulfill three conditions that—

- (1) No obvious or frank disease or personality disorder is present.
- (2) The individual is consciously aware of what he is doing and of the motive responsible for his attitude.
- (3) He is fixed in carrying out a purpose to a preconceived result.

b. When confronted with a case of malingering the observer will try to ascertain how much of what constitutes the total picture is well acted drama and consciously done and how much is true in part and more or less unconscious. For practical purposes these reactions may be divided into the following:

- (1) Malingering for the purpose of attaining a definite end by simulation of a disease by one who has no past history of similar patterns of reaction but who is making an attempt to escape in an emergency (temporary reaction); one who feigns his symptoms as a bluff and hopes to get away with it.

- (2) Malingering to the extent of exaggerating or "capitalizing" conditions or symptoms that are present for the purpose of avoiding service. This includes an enlargement on minor physical ailments or on relatively insignificant diseases, emphasizing mild personality problems or neuroses, and over-emphasis on symptoms of fatigue, etc.
- (3) Malingering as a manifestation of a psychopathic personality with a suggestion or definite history of previous psychopathic behavior. In intelligence the psychopath may be retarded, of average endowment, or superior but he is incapable of adjustment under ordinary life conditions. The ranks of psychopathic personality contain many persons having an irresistible tendency to alcoholism, drug addiction, sex perversion, and criminality, including numbers of cranks, extremists, eccentrics, hobos, and queer social misfits.
- (4) The psychoneurotic suffering with hysteria, who believes in the reality of a disability which on the surface appears to be a definite simulation, requires a special investigation. The confusion of hysteria with true malingering is not infrequently made by those who consider nearly all hysterics as malingerers with symptoms that could be controlled voluntarily. Some of these psychoneurotics exaggerate more or less unconsciously their symptoms to gain their ends, thus emphasizing the questions of how much is neurosis, how much is simulation, and how much is associated with a change in personality.
- (5) Malingering or reactions considered to be malingering may appear in those basically psychoneurotic, insecure, and apprehensive, or physically ill as well as in those suffering from psychoses, epilepsy, and organic brain disorders where there has been a definite change in personality. These reactions frequently confused with pure malingering may become much worse during investigation or attempted correction.

c. Among these five groups the typical members are readily distinguished but intermediate and doubtful cases which resist differentiation do occur. It should be kept in mind that it is even more difficult for a healthy person to feign disease than it is for a diseased person to simulate health and that a malingerer may be able to simulate and to accentuate single symptoms but he is practically always unable to feign the entire picture of the disease he has selected and thus the expert can usually detect omissions, discrepancies, and contradictions in the situation.

106. Feigned medical diseases.—*a.* The detection and management of malingerers simulating medical diseases depend upon the absence of positive findings in an individual who presents the general characteristics of the malingerer. There is especial need for the physical examination to be thorough in this group. Some of the cardiac cases at first regarded as malingerers may later be found to have mitral stenosis or bacterial endocarditis. Similarly, proper tests may show the existence of peptic ulcer in those suspected of feigning digestive abnormalities. The estimation of the reality of rheumatic pains is always a difficult matter.

b. Tachycardia and thyrotoxicosis may be temporarily induced by ingestion of drugs such as thyroid extract. Egg albumin or sugar may be added to urine. Canned milk may be utilized to simulate urethral discharge. Cantharides may be taken to cause albuminuria. Digitalis and strophanthus may be taken to cause abnormal heart findings. The skin may be irritated by various substances. Cathartics may be taken to bring about purging or to simulate a chronic diarrhea. An appearance of hemoptysis may be produced by adding blood, either human or that of animals, to the sputa. Sometimes merely coloring matter is added. Those who can vomit voluntarily what they swallow use the same means to create the appearance of hematemesis. Similarly, coloring matter may be added to the stools. Mechanical and chemical irritants may be used to cause inflammation about practically all the body orifices. Jaundice may be simulated by taking picric acid. Artificial jaundice is recognized by demonstration of picric acid in the urine.

107. Feigned surgical conditions.—Under this are included old scars and injuries of the bones, fractures, and orthopedic conditions. Others may shoot or cut off their fingers or toes, usually on the right side, to disqualify themselves for service. Some may put their hands under cars for this purpose. Retention of urine may be simulated. Substances may be injected under the skin to create abscesses. Crutches, braces, strappings, or trusses may be used to give the appearance of disability. Wounds are rarely self-inflicted when witnesses are present, consequently it is almost impossible to be certain of malingering in some cases.

108. Feigned nervous or mental illness.—*a. Psychosis.*—Rarely feigned by individuals and then usually a silly, foolish type. In case of doubt, hospital observation is necessary, with verification of past records. Mental deficiency is frequently feigned, especially by illiterates.

b. Pain and hyperesthesia.—The most frequent of all complaints. History inconsistent, ordinary indications of suffering absent. Absence of other symptoms usually accompanies types of pain of which complaint is made. Absence of objective evidence of localized pains. Note behavior when the registrant believes himself unobserved.

c. Anesthesia.—Complaint of anesthesia itself creates a suspicion of malingering as most patients with anesthesia are ignorant of it.

d. Epilepsy.—Men who have sustained head injury may claim fits. These complaints may be in reference to grand mal or petit mal. Petit mal attacks are spoken of as fainting attacks. In grand mal attacks there is loss of pupil response to light, knee jerks are lost, and the Babinski reflex may be present.

e. Hysteria.—Not feigned in itself but its existence creates confusion as to malingering. The question to be decided is whether the individual is too seriously affected with the neurosis to be useful as a soldier.

f. Stiff back.—Stiff back is a frequent symptom of hysteria in mobilization among selected men. In cases of this kind, organic disease of the vertebrae can and will be excluded, if necessary by X-ray.

109. Simulated defects of vision.—See section IV.

110. Simulated defects of hearing.—See section V.

111. Bed wetting.—Bona fide enuresis substantiated by a physician's affidavit or other acceptable documentary evidence is cause for unconditional rejection. See paragraph 98f(3).

112. General considerations.—*a.* All men suspected of malingering will be subjected immediately to a thorough psychiatric survey which will include a careful history of their previous behavior and adjustment record and a complete physical, neurological, and laboratory evaluation. Observation in hospital may be required. Suspected malingerers found suffering from definite psychoneuroses and others in whom signs of mental disorders are detected will be rejected for military service.

b. Whenever it appears to an examining physician that an individual is endeavoring to escape service by malingering, if otherwise mentally and physically fit, he will be accepted.

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[A.G. 300.8 (14 Apr 44).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

APPENDIX C

ARMY REGULATIONS
No. 40-105

WAR DEPARTMENT
WASHINGTON, May 29, 1923.

MEDICAL DEPARTMENT

STANDARDS OF PHYSICAL EXAMINATION FOR ENTRANCE INTO THE REGULAR ARMY, NATIONAL GUARD, AND ORGANIZED RESERVES

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1. Purpose of standards; how construed.—The purpose of the standards of physical examination is to secure the greatest efficiency and uniformity in making physical exam-

NOTE.—This pamphlet supersedes AR 40-105, June 20, 1921.

inations for entrance into the Army of the United States. Medical examiners and line officers should interpret the standards with discretion and should not construe them too arbitrarily, the object being to procure personnel which is physically fit for the rigors of military service.

2. Application of standards to candidates for commission.—*a.* The standards, as prescribed for candidates for commission, will apply uniformly to those seeking commission in the Regular Army, in the National Guard, and in the Organized Reserves, except as otherwise provided in these regulations.

b. Candidates for commission for special service in the Organized Reserves (as contemplated in paragraphs 14*b* and 16, S.R. No. 43) will not be required to conform strictly to the standards as prescribed for other candidates for commission, but must be free from any defect or pathological condition which would interfere with the performance of the duty expected of them in the Army, or which would as a result of military service be especially liable to undergo progressive change or to become the basis of a claim against the Government in the event of call to active service.

When an individual who does not reach the physical standards required for service with troops is recommended by medical examiners for commission for special service, the action in respect to recommending waiver will be taken as directed in paragraph 13, particular care being exercised to note in detail all defects or deficiencies and to state specifically the character of military duty the candidate is able to perform and for which he desires to be commissioned.

3. Fundamental qualifications of a soldier.—Medical examiners should be especially careful in the acceptance of applicants who suffer from defects of vision; defects of hearing; chronic discharge from the ear or ears; toxic conditions associated with abnormal conditions of the thyroid or other ductless glands; valvular disease of the heart; tuberculosis; epilepsy; mental disease or deficiency; and irremediable defects of the feet. In other words, to make a good soldier the applicant must be able to see well and have good hearing; his heart must be competent to stand the stress of physical exertion; he must be intelligent enough to understand and execute military maneuvers, obey commands, and protect himself; and he must be able to transport himself by marching as the exigencies of military life may demand.

4. Rejection for causes not specially noted.—If any applicant for enlistment or candidate for commission is regarded by the medical examiner as physically unfit for the military service by reason of a condition not specially noted in these regulations as a cause for rejection, he will, nevertheless, be rejected, and a full statement of the reasons therefor entered on the proper form. A candidate for commission who is rejected under the provisions of this paragraph will, if he so desires, be permitted to continue with the mental and professional examination, the final decision as to physical fitness in each case being made by the War Department.

5. Enlistment prohibited if rejected by medical examiner.—The enlistment of any applicant who has been found physically disqualified by the medical examiner is prohibited unless such enlistment is specially authorized by the War Department after a report submitting all facts in the case has been considered.

6. Enlistment of former soldiers whose physical condition at date of last discharge was not good.—No former soldier who was discharged on certificate of disability or whose physical condition, as noted on last discharge, was other than "excellent" or "good" will be enlisted without authority from the War Department. In requesting authority for the enlistment of such former soldiers a complete report as to the notations on last discharge and statement of his present physical condition will be submitted with the request.

7. Definition of term "applicant."—Wherever the term "applicant" is used in these regulations it will apply to applicants for enlistment and candidates for commission.

SECTION II

GENERAL INSTRUCTIONS FOR EXAMINATION

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8. Place.—The physical examination should take place in a large, well-lighted room. An adjacent quiet room should be available for the examination of the heart and lungs. The temperature of the rooms should be so regulated in cold weather as to prevent uncomfortable or dangerous exposure of the naked men undergoing examination.

9. Care.—The applicant or candidate will be carefully questioned about his past and present physical condition, special inquiry being made regarding any serious illness, injury, or operation he may have had. The examination will be carried out with the utmost care in order that no applicants who are unfit for service be accepted, only to be discharged within a short time on certificate of disability. Where practicable the examination will be conducted by several medical officers, under the supervision of the chief medical examiner. Each officer will be definitely assigned to stated portions of the examination and will be held responsible for the results obtained in that part of the examination made by him. During the entire examination all examiners should be especially observant with a view to determining the mental characteristics of the examinee.

10. Additional diagnostic procedures.—The medical examiner will, if necessary, employ every diagnostic procedure at his disposal, including the use of the microscope, the X-ray, or other laboratory methods, with a view to determining the true condition in doubtful cases.

11. Routine order.—The order in which the physical examination is conducted must be determined by the officer in charge, depending upon the facilities available. In general, all procedures in the examination which can be conducted without the applicant being stripped should be carried out first. Men should not be required to remain nude for a longer period than is absolutely necessary, and the number brought together in this condition should be limited in order to spare the sensibilities of modest individuals.

12. Applicants for enlistment.—The physical examinations of applicants for enlistment will be made by medical officers of the Army or by contract surgeons, unless special authority for examination by a civilian physician is granted by the War Department. The results of the examination will be recorded on Form No. 22, A.G.O. (Enlistment record). The examination will be thorough in every detail and the examiner may have doubtful cases admitted to a military hospital for study and observation during a period of not to exceed six days in order that a definite conclusion may be reached regarding their desirability as soldiers. Applicants unfit for service by reason of a disease, not of a serious nature and which it is believed can be cured within a short time, may be admitted to a military hospital for treatment with a view to their enlistment upon recovery. The physical examination will be made complete in each case, even though a disqualifying defect be discovered, in order to ascertain whether or not any other defects exist. Every defect noted, whether or not it is disqualifying, will be entered on the proper form. No applicant will be accepted for enlistment who does not conform to the standards set forth herein. In the case of specially desirable applicants, who have some defect which in the opinion of the examiner will not interfere with the performance of their military duties, request for a waiver of the defect may be made to The Adjutant General. In these

requests the nature and degree of the defect and the reason for recommending waiver should be clearly stated. Men desiring to reenlist who have defects which would be cause for rejection for original enlistment, but not such as to prevent the performance of the duties to be expected of them, will be reported to The Adjutant General with request for waiver.

13. Candidates for commission and applicants for appointment as warrant officers.—The physical examination of candidates for commission will be conducted by the medical members of the examining board and will be recorded on Form No. 395, A.G.O. Each candidate will be subjected to a thorough and rigid physical examination. All medical officers engaged in making these examinations are enjoined to exercise the greatest care and diligence in this procedure and to assure themselves that all findings are fully and accurately recorded. Sufficient time must be given to this examination to make certain that every detail is thoroughly carried out. Each defect noted must be recorded in such a clear and complete manner that no question as to its character, degree, and significance can arise when the report of the board is reviewed in the War Department. When a candidate is rejected, the cause must be clearly established and so definitely recorded as to be conclusive regarding the propriety of the rejection. Symptoms of disease will not be noted as causes of rejection if it is possible to arrive at a definite diagnosis. In every instance the disease or disability for which a candidate is rejected will be entered in full. A candidate who does not conform to the standard of requirements will be rejected by the medical examiners. If the members of the examining board believe that a defect which is classified in these regulations as disqualifying should be waived in any particular case, recommendation to that effect may be submitted to the War Department. In making such recommendations the nature and degree of the defect and the reason for recommending waiver should be clearly stated. Candidates will not be accepted subject to the performance of surgical operations for the removal or cure of defects. The same physical standards will apply to all candidates for commission, regardless of the branch of service or grade in which appointment is desired, except as otherwise provided in these regulations.

The examination of an applicant for appointment to the grade of warrant officer will be that prescribed herein for an applicant for enlistment. Report of this examination will be made on Form No. 395, A.G.O.

14. Special examination for flying.—Candidates for commission as flying officers of the Air Service, and applicants for enlistment as flying cadets, will be given the additional physical examination required by AR 40-110, Standards of Physical Examination for Flying. This examination will be conducted only by medical officers specifically authorized to do so, in accordance with the provisions of AR 40-110, and will be recorded on Form No. 609, A.G.O. (Physical examination for flying), Form No. 395, A.G.O. (Physical examination for appointment in the Army), or Form No. 22, A.G.O. (Enlistment record), also being prepared in these cases.

SECTION III

THE EYES

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15. Inspection for disease.—Each eye will be inspected for evidence of muscular or other defect and for disease, the lids being everted.

16. Determination of visual acuity.—To determine the acuity of vision, place the person being examined with his back to a window at a distance of 20 feet from the test types. Examine each eye separately, without glasses, covering the other eye with a card

(not the hand), or other suitable device, especial care being taken to see that the vision in the covered eye is completely occluded. No pressure should be applied to the occluded eye. The applicant or candidate is directed to read the test types from the top of the card down as far as he can see, and his acuity of vision is recorded for each eye separately, with the distance of 20 feet as the numerator of a fraction and the size of the type of the lowest line he can read correctly as the denominator. If he reads the 20-foot type correctly, his vision is normal and is recorded 20/20; if he does not read below the 30-foot type, the vision is imperfect and is recorded 20/30; if he reads the 15-foot or 40-foot type, the vision is recorded as 20/15 or 20/40, respectively, etc. In case he can read all the 20-foot type except one or two, the vision is recorded as 20/20-1 or 20/20-2, etc. If he can read the 30-foot type and one, two, or three of the 20-foot type, the vision is recorded as 20/30+1, 20/30+2, 20/30+3, etc. Any person having a visual acuity less than 20/40 in either eye will be given the necessary further examination (including refraction) to determine the exact cause of the defect, especial attention being directed to the discovery of organic disease of the eye. The correcting formula will be recorded as follows:

Vision R.E. 20/30, corrected to 20/20 by +1.50 D. cyl. 180°.

Vision L.E. 20/100, corrected to 20/20 by -2.00 D. sph. with +0.50 D. cyl. 90°.

Special care should be taken to make certain that the candidate has not memorized the letters on any line. Reading the lines backward or identifying certain letters when the others are covered are methods of overcoming such attempts to deceive.

17. Standards for applicants for enlistment.—*a.* A minimum vision of 20/100 in each eye, correctible to 20/40 in either eye, when no organic disease of either eye exists, is required.

b. The following conditions are causes for rejection:

- (1) Trachoma, or xerophthalmia.
- (2) Chronic conjunctivitis.
- (3) Pterygium encroaching upon the cornea.
- (4) Complete or extensive destruction of the eyelids, disfiguring cicatrices, adhesions of the lids to each other or to the eyeball.
- (5) Inversion or eversion of the eyelids, or lagophthalmus.
- (6) Trichiasis, ptosis, blepharospasm, or chronic blepharitis.
- (7) Epiphora, chronic dacryocystitis, or lachrymal fistula.
- (8) Chronic keratitis, ulcers of the cornea, staphyloma, or corneal opacities encroaching on the pupillary area and reducing the acuity of vision below the standard noted above.
- (9) Irregularities in the form of the iris, or anterior or posterior synechiae sufficient to reduce the visual acuity below the standard.
- (10) Opacities of the lens or its capsule, sufficient to reduce the acuity of vision below the standard, or progressive cataract of any degree.
- (11) Extensive coloboma of the choroid or iris, absence of pigment, glaucoma, iritis, or extensive or progressive choroiditis.
- (12) Retinitis, detachment of the retina, neuro-retinitis, optic neuritis, or atrophy of the optic nerve.
- (13) Loss or disorganization of either eye, or pronounced exophthalmus.
- (14) Pronounced nystagmus, or permanent or well-marked strabismus.
- (15) Diplopia, or night blindness.
- (16) Abnormal conditions of the eyes due to disease of the brain.
- (17) Malignant tumors of lids or eyeballs.
- (18) Asthenopia accompanying any ocular defect.

18. Standards for candidates for commission.—*a.* For commission in all branches of the Regular Army, except in the Medical Department and as a chaplain, a minimum vision of 20/40 in each eye, correctible with glasses to 20/20 in one eye, when no organic disease

of either eye exists, is required. Color blindness for red, green, or violet is a cause for rejection.

b. For commission in the Medical Department and as a chaplain in the Regular Army, a minimum vision of 20/200 in each eye, correctible with glasses to 20/20 in one eye, is required when the refractive error is due to myopia, myopic astigmatism, or compound myopic astigmatism; and a minimum of 20/50 in each eye, correctible with glasses to 20/20 in one eye, when the refractive error is due to hyperopia, hyperopic astigmatism, or compound hyperopic astigmatism; provided in each case that no organic disease exists in either eye. Color blindness for red, green, or violet is a cause for rejection of applicants for the Medical Department, but not for applicants for appointment as chaplains.

c. For commission in the National Guard, and for service with troops in the Organized Reserves, a minimum vision of 20/200 in each eye, correctible with glasses to 20/20 in one eye, when no organic disease of either eye exists, is required. Color blindness for red, green, or violet is cause for rejection.

d. In other respects the standards are the same as for applicants for enlistment.

SECTION IV

THE EARS

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19. Examination for disease.—The external ears and mastoid region will be examined by inspection, and, if necessary, the mastoid region by palpation. The external auditory canal and membrana tympani will be examined by reflected light in the dark room or by a self-illuminating otoscope.

20. Determination of auditory acuity.—To determine the acuity of hearing, place the applicant facing away from the assistant, 20 feet distant, and direct him to repeat promptly the words spoken by the assistant. If the applicant can not hear the words at 20 feet, the assistant should approach foot by foot, using the same tone of voice, until the words are repeated correctly. Examine each ear separately, closing the other ear by pressing the tragus firmly against the meatus; the examiner may face in the same direction as the applicant and close one of his own ears in the same way as a control. The assistant should speak in a low conversational voice (not a whisper), just plainly audible to the examiner, and should use numerals, names of places, or other words or sentences until the condition of the applicant's hearing is evident. The acuity of hearing should be expressed in a fraction, the numerator of which is the distance in feet at which the words are heard by the applicant and the denominator the distance in feet at which the words are heard by the normal ear; thus 20/20 indicates normal hearing, 10/20 partial hearing of a degree indicated by the fraction, that is, the applicant only hears at 10 feet distance the words which a normal ear hears at 20 feet. The duties of the examiner and assistant may be reversed if desired. If any doubt arises as to the correctness of the answer given, the applicant may be blindfolded and a watch should be used to determine the distance at which it can be heard, care being taken that the applicant does not know the distance from the ear at which it is being held. The watch used should be one whose ticking strength has been tested by determining the distance at which it can be heard by a normal ear.

21. Standards for applicants for enlistment.—*a.* The acuity of hearing must be at least 15/20 in one ear and 20/20 in the other.

b. The following conditions are causes for rejection :

- (1) The total loss of an external ear, marked hypertrophy or atrophy, or disfiguring deformity of the organ.
- (2) Atresia of the external auditory canal, or tumors of this part.
- (3) Acute or chronic suppurative otitis media, or chronic catarrhal otitis media.
- (4) Mastoiditis, acute or chronic.
- (5) Existing perforation of the membrana tympani following otitis media (not to include traumatic perforations in which hearing is not below prescribed standard, nor former perforations following otitis media when the continuity of the drum has been restored by cicatrization.

22. Standards for candidates for commission.—*a.* For commission in the Regular Army hearing in each ear must be 20/20.

b. For commission in the National Guard, and for service with troops in the Organized Reserves, hearing in one ear must be 20/20 and in the other not less than 15/20.

c. In other respects the standards are the same as for applicants for enlistment.

SECTION V

GENERAL EXAMINATION, INCLUDING HEIGHT, WEIGHT, AND CHEST MEASUREMENT

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23. Facts determined by inspection.—Examination will be conducted with the applicant entirely nude. A thorough general inspection of the entire body will be made, noting the proportion and symmetry of the various parts of the body, the chest development, the condition and tone of the muscles, the general nutrition, the character of the skin, the presence of any deformities or of signs of immaturity. This examination frequently determines the fact of the applicant's unfitness for military service; it may show him to be undersized, underweight, undeveloped, pale and emaciated, poorly nourished with thin flabby muscles, or manifestly lacking in stamina and resistance to disease.

24. Evidences of maturity.—Physical evidence of maturity may be summed up as follows :

a. The wisdom teeth are sometimes but not always cut.

b. There should be some beard upon the face, hair under the arms, and a full growth of hair around the genitals extending upward on the abdomen.

c. The skin of the scrotum has lost its soft texture, smooth surface and pinkish hue, and is assuming a wrinkled surface with a darker tint.

25. Directions for taking height.—Use a board at least 2 inches wide by 80 inches long placed vertically and carefully graduated to one-quarter inch. The applicant will be placed against the measuring board with his feet together, the weight being thrown on the heels and not on the toes nor on the outside of the feet. He must be made to stand erect without

rigidity, and with the heels, calves, buttocks, and shoulders touching the board, the chin being depressed sufficiently to bring the head into a natural upright position. Obtain the height by placing horizontally, in firm contact with the top of the head and against the measuring board, an accurately square board, which should preferably be attached permanently to the measuring board. The height will be recorded in inches and parts of an inch to the quarter.

Where a measuring rod is arranged on the scales this may be used.

26. Weight.—The applicant will be weighed on a standard set of scales which are known to be correct. The weight will be recorded in pounds (fractions of pounds will not be recorded).

27. Directions to taking chest measurements.—The applicant will be made to stand erect with his heels together and arms hanging loosely at the sides. The measuring tape will be carefully adjusted around the chest, with the upper edge of the tape just below the lower angles of the shoulder blades behind and the nipples in front. The tape should be approximately horizontal. The applicant will then be directed to take several deep breaths, followed by complete exhalation, in order to verify the maximum and minimum measurements. Care must be taken not to displace the tape and to avoid muscular contortions, which frequently cause a greater inspiratory measurement than the actual lung capacity warrants. Great patience and care are often necessary to obtain correct results in these measurements, as many men do not know how to expand the chest correctly and must be taught the proper method. The chest measurement at inspiration and expiration will be recorded in inches and fractions of an inch to quarters. The mobility is the difference between the measurements recorded at inspiration and expiration.

28. Standards of height, weight, and chest measurement.

a. Standards for all applicants except Filipinos.

A. Standard accepted measurements				B. The following variations from the standard shown in column A are permissible when the applicant is active, has firm muscles, and is evidently vigorous and healthy			
Height	Weight	Chest measurement		Height	Weight	Chest measurement	
		At expiration	Mobility			At expiration	Mobility
<i>Inches</i>	<i>Pounds</i>	<i>Inches</i>	<i>Inches</i>	<i>Inches</i>	<i>Pounds</i>	<i>Inches</i>	<i>Inches</i>
64	128	32	2	64	120	30	2
65	130	32¼	2	65	121	30	2
66	132	32½	2	66	122	30¾	2
67	136	33	2	67	124	30½	2
68	141	33¼	2½	68	126	30¾	2
69	148	33½	2½	69	128	31	2
70	155	34	2½	70	130	31¼	2
71	162	34¼	2½	71	133	31¾	2
72	169	34¾	3	72	138	32¼	2½
73	176	35¼	3	73	143	32¾	2½
74	183	36	3	74	148	33½	2½
75	190	36¾	3¼	75	155	34¼	2¾
76	197	37¼	3½	76	161	34¾	2¾
77	204	37¾	3¾	77	168	35¼	3
78	211	38¼	4	78	175	35¾	3

b. Minimum standards for Filipino applicants only.

Height	Weight	Chest measurement at expiration	Height	Weight	Chest measurement at expiration
<i>Inches</i>	<i>Pounds</i>	<i>Inches</i>	<i>Inches</i>	<i>Pounds</i>	<i>Inches</i>
59	100	28½	65	110	30
60	101	28¾	66	113	30¼
61	102	29	67	118	30½
62	103	29¼	68	124	30¾
63	105	29½	69	127	31
64	107	29¾	70	130	31¼

29. Exercises.—The applicant will be put through a series of movements similar to those described below, which will bring into action the various joints and muscles of the body. This purpose is best accomplished by requiring the applicant to follow the movements as made by the examiner or an assistant.

a. The elbows should be brought firmly to the sides of the body and the forearms extended to the front, palms of the hands uppermost; extend and flex each finger separately; bring the tips of the thumbs to the base of the little fingers; close the hands, with the thumbs covering the fingers; extend and flex the hands on the wrists; rotate the hands so that the finger nails will first be up and then down; move the hands from side to side. Extend the arms and forearms fully to the front and rotate them at the shoulders; flex the forearms on the arms sharply, striking the shoulders with the fists. Extend the arms at right angles with the body; place the thumbs on the points of the shoulders; raise and lower the arms, bringing them sharply to the sides at each motion. Let the arms hang loosely by the sides; swing the right arm in a circle rapidly from the shoulder, first to the front and then to the rear; swing the left arm in the same manner. Extend the arms fully to the front, keeping the palms of the hands together and the thumbs up; carry the arms quickly back as far as possible, keeping the thumbs up, and at the same time raise the body on the toes. Extend the arms above the head, locking the thumbs, and bend over to touch the ground with the hands, keeping the knees straight.

b. Extend one leg, lifting the heel from the floor, and move all the toes freely; move the foot up and down and from side to side, bending the ankle joint, the knee being kept rigid; bend the knee freely; kick forcibly backward and forward; throw the leg out to the side as far as possible, keeping the body squarely to the front; repeat all these movements with the other foot and leg; strike the breast first with one knee and then with the other; stand upon the toes of both feet; squat sharply several times; kneel upon both knees at the same time (if the man comes down on one knee after the other there is reason to suspect infirmity).

c. Take the position to "fire kneeling"; stand erect, present the back to the examiner, and then hold up to view the sole of each foot; leap directly up, striking the buttocks with both heels at the same time; hop the length of the room on the ball of first one foot and then the other; make a standing jump as far as possible and repeat it several times; run the length of the room several times.

30. Results of exercises.—While the exercises prescribed may cause some breathlessness and accelerated throbbing of the blood vessels, they should not cause manifest exhaustion or great distress in a healthy man. Lack of ability to perform any of these exercises indicates some defect or deformity that should be investigated further.

31. Standards for applicants for enlistment.—*a.* No applicant except Filipinos will be accepted who is less than 64 inches in height or weighs less than 120 pounds, or has a chest mobility of less than 2 inches.

b. The standards as to the relationship between height, weight, and chest measurement given in the tables in paragraph 28 relate to young men between 20 and 25 years of age, and in general an applicant will not be accepted whose weight and chest measurement are not proportionate to his height, as prescribed in the tables in paragraph 28. In special cases when the applicant is active, has firm muscles, and is evidently vigorous and healthy, variations to the extent noted in column **B** of table in paragraph 28 may be allowed. No applicant will be accepted who falls below the requirements laid down in column **B** of the table.

c. Variations in weight above the standard are disqualifying if sufficient to constitute such obesity as to interfere actually or potentially with normal physical activity, as may be evidenced by high blood pressure, a beginning nephritis, breaking down of the arches of the feet, or other defects incident to such condition. No applicant will be accepted for Cavalry service whose weight is in excess of 180 pounds.

d. The following conditions are causes for rejection, except as provided for in paragraph 12:

- (1) Any deformity which is repulsive or which prevents the proper functioning of any part to a degree interfering with military efficiency.
- (2) Obesity when so marked as to interfere with marching or military duties.
- (3) A height of more than 78 inches.
- (4) Deficient muscular development.
- (5) Deficient nutrition.
- (6) Evidences of physical characteristics of congenital asthenia. The physical characteristics of congenital asthenia are slender bones, a weak ill-developed thorax, nephroptosis, gastroptosis, constipation, the "drop" heart, with its peculiar attenuation and weak and easily fatigued musculature.
- (7) All acute communicable diseases.
- (8) All diseases and conditions which are not easily remediable or that tend to physically incapacitate the individual, such as—
 - (*a*) Chronic malaria and malarial cachexia.
 - (*b*) Severe uncinariasis.
 - (*c*) Tuberculosis, of whatever degree and whether general or localized.
 - (*d*) Leprosy and actinomycosis.
 - (*e*) Pellagra and beriberi.
 - (*f*) Recurrent attacks of rheumatic fever, chronic articular rheumatism, and chronic arthritis.
 - (*g*) Cellulitis and osteomyelitis.
 - (*h*) Malignant disease of all kinds in any location.
 - (*i*) Hemophilia and purpura.
 - (*j*) Leukemia of all types.
 - (*k*) Pernicious anemia.
 - (*l*) Splenic anemia.
 - (*m*) Filariasis and trypanosomiasis.
 - (*n*) Diabetes mellitus or insipidus.
 - (*o*) Acromegaly, gigantism, myxoedema, cretinism, Addison's disease, and other endocrine diseases.
 - (*p*) Chronic metallic poisoning.

32. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION VI

THE SKIN

	Paragraph
Examination for disease.....	33
Standards for applicants for enlistment.....	34
Standards for candidates for commission.....	35

33. Examination for disease.—The skin will be inspected for eruptions and for signs of anemia, jaundice, and other symptoms of disease, for hypodermic and other scars, and for pediculi. In a consideration of disease of the skin as a cause for rejection, particularly scabies and pediculosis, special attention should be given to the provisions of paragraph 12 in regard to placing applicants in hospital with a view to their cure and subsequent enlistment. As a general rule, applicants *extensively* infested with vermin and filthy in person and clothing should be rejected as probably being unsuited for the military service by reason of habits, character, or mental deficiency.

34. Standards for applicants for enlistment.—The following conditions are causes for rejection:

- a. Eczema of long standing or which is rebellious to treatment.
- b. Chronic impetigo, pemphigus, lupus, or sycosis.
- c. Actinomycosis, dermatitis herpetiformis, or mycosis fungoides.
- d. Extensive psoriasis, or ichthyosis.
- e. Acne upon face or neck which is so pronounced as to amount to positive deformity.
- f. Elephantiasis.
- g. Pediculosis or scabies. See paragraphs 12 and 33.
- h. Carbuncle.
- i. Ulcerations of the skin not amenable to treatment, or those of long standing, or of considerable extent, or of syphilitic or malignant origin.
- j. Extensive, deep, or adherent scars that interfere with muscular movements or with the wearing of military equipment, or that show a tendency to break down and ulcerate.
- k. Naevi and other erectile tumors if extensive, disfiguring, or exposed to constant pressure.
- l. Obscene, offensive, or indecent tattooing on portions of the body subject to exposure.

35. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION VII

THE HEAD

	Paragraph
Examination for defects	36
Standards for applicants for enlistment.....	37
Standards for candidates for commission.....	38

36. Examination for defects.—The head will be carefully inspected for stigmata of degeneration. The scalp will be examined for pediculi. Every portion of the cranium will be palpated for evidence of former injury, depression from any cause, and for other deformity.

37. Standards for applicants for enlistment.—The following conditions are causes for rejection:

- a. Tinea in any form. See paragraphs 12 and 33.
- b. All tumors which are of sufficient size to interfere with the wearing of military headgear.
- c. Imperfect ossification of the cranial bones, or persistence of the anterior fontanelles.

d. Extensive cicatrices, especially such adherent scars as show a tendency to break down and ulcerate.

e. Depressed fractures or depressions, or loss of bony substance of the skull, unless the examiner is certain the defect is slight and will cause no future trouble.

f. Monstrosity of the head, or hydrocephalus.

g. Hernia of the brain.

h. Deformities of the skull of any degree associated with evidence of disease of the brain, spinal cord, or peripheral nerves.

38. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION VIII

THE FACE

	Paragraph
Examination for disease.....	39
Standards for applicants for enlistment.....	40
Standards for candidates for commission.....	41

39. Examination for disease.—The face will be examined by inspection and, if necessary, by palpation.

40. Standards for applicants for enlistment.—The following conditions are causes for rejection:

a. Extreme ugliness.

b. Unsightly deformities, such as large birthmarks, large hairy moles, extensive cicatrices, mutilations due to injuries or surgical operations, tumors, ulcerations, fistulae, atrophy of a part of the face or lack of symmetrical development.

c. Persistent neuralgia, tic douloureux, or paralyzes of central nervous origin.

d. Ununited fractures of the maxillary bones, deformities of either maxillary bone interfering with mastication or speech, extensive exostosis, caries, necrosis, or osseous cysts.

e. Chronic arthritis of the temporo-maxillary articulation, badly reduced or recurrent dislocations of this joint, or ankylosis, complete or partial.

41. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION IX

THE MOUTH, NOSE, FAUCES, PHARYNX, LARYNX, TRACHEA, AND ESOPHAGUS

	Paragraph
Methods of examination.....	42
Standards for applicants for enlistment.....	43
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42. Methods of examination.—These parts will be examined by inspection and palpation. A complete examination by reflected light in the dark room will be made of the anterior and posterior nares, the nasopharynx, and the pharynx, and when necessary of the larynx. When considered necessary, transillumination and studies by the X-ray will be employed.

43. Standards for applicants for enlistment.—The following conditions are causes for rejection:

a. Harelip, loss of the whole or a large part of either lip, unsightly mutilations of the lips from wounds, burns, or disease.

b. Malformation, partial loss, atrophy or hypertrophy of the tongue, split or bifid tongue, or adhesions of the tongue to the sides of the mouth, provided these conditions interfere with mastication, speech, or swallowing, or appear to be progressive.

- c.* Malignant tumors of the tongue, or benign tumors that interfere with its functions.
 - d.* Marked stomatitis, or ulcerations, or severe leukoplakia. *See* paragraph 12.
 - e.* Ranula if at all extensive, or salivary fistula.
 - f.* Perforation or extensive loss of substance or ulceration of the hard or soft palate, extensive adhesions of the soft palate to the pharynx, or paralysis of the soft palate.
 - g.* Loss of the nose, malformation, or deformities thereof that interfere with speech or breathing or extensive ulcerations.
 - h.* Perforated nasal septum, if progressive, or if respiration is accompanied by a noticeable whistling sound. Before accepting any applicant with a perforated nasal septum the possibility of syphilitic infection will be excluded.
 - i.* Nasal obstruction due to septal deviation, hypertrophic rhinitis, or other causes, if sufficient to produce mouth breathing.
 - j.* Acute or chronic inflammation of the accessory sinuses of the nose, or hay fever.
 - k.* Chronic atrophic rhinitis, if marked and accompanied by ozena.
 - l.* Malformations and deformities of the pharynx of sufficient degree to interfere with function.
 - m.* Postnasal adenoids interfering with respiration or associated with progressive middle-ear disease.
 - n.* Chronic enlargement of the tonsils sufficient to interfere with speech or swallowing.
 - o.* Chronic laryngitis from any cause.
 - p.* Paralysis of the vocal cords, or aphonia.
 - q.* Tracheostomy.
 - r.* Stricture or pronounced dilatation of the esophagus.
44. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION X

THE TEETH

	Paragraph
Requirements for acceptance-----	45
Definitions of terms used-----	46
Standards for applicants for enlistment-----	47
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45. Requirements for acceptance.—The teeth will be thoroughly examined by a dental surgeon, if one is available. No applicant or candidate will be accepted unless he has a minimum of three serviceable natural masticating teeth above and three below opposing, and three serviceable natural incisors above and three below opposing. Therefore, the minimum requirement consists of a total of six masticating teeth and of six incisor teeth, all of which must be so opposed as to serve the purpose of incision and mastication.

46. Definition of terms used.—*a.* The term "masticating teeth" includes molar and bicuspid and the term "incisors" includes incisor and cuspid teeth.

b. A carious tooth with one or more cavities which can be restored by filling is to be considered as "a serviceable natural tooth."

c. Teeth which have been satisfactorily restored by crowns or replaced by dummies attached to bridge work will be considered as "serviceable natural teeth," when the history and appearance clearly warrant such assumption.

d. A tooth is not to be considered "a serviceable natural tooth" when it is involved with excessively deep pyorrhea pockets, or when its root end is manifestly affected with an infection that has or has not an evacuating sinus discharging through the mucous membrane or skin, or when it fails to enter into serviceable occlusion with the opposing tooth.

47. Standards for applicants for enlistment.—The following conditions are causes for rejection :

- a.* The loss of teeth in excess of the standard noted in paragraph 45.
- b.* Marked pyorrhea alveolaris.
- c.* Gross prognathism or irregularity which interferes with serviceable occlusion.

48. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XI

THE NECK

	Paragraph
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49. Significance of cervical adenitis.—The neck will be examined by inspection and palpation. Cervical adenitis must be given careful consideration with a view to determining its cause. If the condition is of benign origin, such as dental caries or pediculosis, it is not a cause for rejection. Adenitis in the submaxillary, parotid, and auricular region is usually of benign origin; in the clavicular and lower carotid regions it is frequently tubercular. The presence of adenitis should always be borne in mind as a possible symptom of syphilis.

50. Standards for applicants for enlistment.—The following conditions are causes for rejection :

- a.* Cervical adenitis of other than benign origin, including cancer, Hodgkin's disease, leukemia, tuberculosis, syphilis, etc.
- b.* Adherent and disfiguring scars from disease, injuries, or burns.
- c.* Extensive or progressive goiter interfering with breathing or with the wearing of military clothing.
- d.* Exophthalmic goiter, or myxedema.
- c.* Thyroid enlargement from any cause associated with toxic symptoms.
- f.* Benign tumors or cysts which are so large as to interfere with the wearing of a uniform or military equipment.
- g.* Torticollis.

51. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XII

THE SPINE

	Paragraph
Examination for disease.....	52
Standards for applicants for enlistment.....	53
Standards for candidates for commission.....	54

52. Examination for disease.—The spine will be examined by inspection and palpation. The mobility will be observed while the applicant is performing the exercises directed in paragraph 29. When necessary, X-ray examinations will be made.

53. Standards for applicants for enlistment.—The following conditions are causes for rejection :

- a.* Lateral deviation of the spine from the normal midline of more than 2 inches (scoliosis).

b. Curvature of the spine of any degree in which function is interfered with, or in which there is noticeable deformity when the applicant is dressed (scoliosis, kyphosis, or lordosis).

c. Fractures or dislocations of the vertebrae.

d. Vertebral caries (Pott's disease).

e. Abscess of the spinal column or its vicinity.

f. Osteoarthritis of the spinal column, partial or complete.

g. Fracture of the coccyx.

54. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XIII

THE CHEST

	Paragraph
Study of conformation.....	55
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Standards for candidates for commission.....	57

55. Study of conformation.—The chest contains the vital organs of circulation and respiration; it is therefore essential that it be well developed and justly proportioned to the other body measurements. Any marked deviation in form, either a flattening of the chest or more especially a persistence of the round or infantile type, is an element of weakness. Abnormal development, such as pigeon breast, funnel chest, or rachitic chest, is also to be regarded with suspicion, as such conditions usually coincide with a somewhat enfeebled constitution and a predisposition to disease of the lungs. Hence, any anomaly in the shape of the chest must be given careful consideration, especially in connection with the results found in the examination of the contained organs and of other parts of the body.

56. Standards for applicants for enlistment.—The following conditions are causes for rejection:

a. Deficient expansion of the chest.

b. Congenital malformations or acquired deformities which result in reducing the chest capacity and diminishing the respiratory functions to such a degree as to interfere with vigorous physical exertion, or that produce disfigurement when the applicant is dressed.

c. Pronounced contractions of the chest with adhesions following pleurisy or empyema.

d. Deformities of the scapulae sufficient to interfere with the carrying of military equipment.

e. Absence or faulty development of the clavicle.

f. Old fracture of the clavicle where there is much deformity or interference with the carrying of military equipment, ununited fractures, or partial or complete dislocation of either end of the clavicle.

g. Suppurative periostitis or caries or necrosis of the ribs, the sternum, the clavicles, or the scapulae.

h. Old fractures of the ribs with faulty union, if interfering with function.

i. Tumors of the breast or chest wall which interfere with the wearing of a uniform or of military equipment.

j. Unhealed sinuses of the chest wall following operation.

k. Scars of old operations for empyema unless the examiner is assured that the respiratory function is entirely normal.

57. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XIV

THE LUNGS

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Certain physical signs not sufficient for rejection.....	60
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58. General considerations.—The lungs will be examined by inspection, palpation, percussion, and auscultation of the chest. When desirable, radiographic studies and laboratory methods, including examination of sputum, will be used. In the inspection and interrogation of applicants the following points should lead to a suspicion of pulmonary tuberculosis: Apparent undue prominence of the clavicle on one side, caused by a deepening of the hollow above and a flattening of the space beneath; a wasting of the muscles of the shoulder girdle on one side, as evidenced by apparent excessive prominence of the shoulder and scapula; a history of recent loss of weight, especially if associated with long and severe cough and night sweats. In suspected cases observation, with complete record of temperature, pulse, and respiration, may be of assistance. As pleurisy, with or without effusion, is a very frequent incidence of early tuberculosis, examiners will examine with the greatest care applicants who have apparently recovered from pleurisy. Distinction must be made between active and inactive pulmonary tuberculosis. In this connection conservatism must be exercised in the interpretation of physical signs over the apices of the lungs.

59. Interpretation of physical signs.—Each applicant should be required to exhale his breath, cough, and immediately breathe in. The chest should be auscultated during this process. All men who show moist sounds during cough or during respiration should be classed as doubtful cases. All cases should be also classed as doubtful in which there is well-marked dullness on percussion, well-marked increased transmission of voice, harsh respiration, and well-marked prolonged expiration, even though there be no rales present. Men under weight or with sunken or deformed chests should be considered with special care, and if the conditions are marked should be classed as doubtful, even though definite signs of tuberculosis are not detected. Doubtful cases, even in the absence of a positive diagnosis, should normally be rejected.

60. Certain physical signs not sufficient for rejection.—The following signs will *not* be regarded as evidence of pulmonary disease in the absence of other signs in the same portion of the lungs:

a. Slightly harsh breathing or slightly prolonged expiration over the right apex above the clavicle anteriorly and to the third dorsal vertebra posteriorly. The same signs at the extreme apex on the left side.

b. Same signs in second interspace, right, anteriorly near sternum (proximity of right main bronchus).

c. Increased vocal resonance or slightly harsh breathing immediately below center of left clavicle.

d. Fine crepitations over sternum heard when stethoscope touches the edge of that bone.

e. Clicks heard during strong respiration or after cough in the vicinity of the sternocostal articulations.

f. The so-called atelectatic rales at the apex during the first inspiration which follows a deeper breath than usual or a cough.

g. Sounds resembling rales at base of lung (marginal sounds), especially marked in right axilla, limited to inspiration.

h. Similar sounds heard at apex of heart on cough (lingula).

i. Slightly prolonged expiration at left base posteriorly.

j. Very slight harshness of respiratory sounds with prolonged expiration in the lower para-vertebral regions of both lungs posteriorly, most marked at about angle of scapula, disappearing a short distance above that point, equal on both sides, or slightly more marked at the angle on one side, more frequently the left.

61. Standards for applicants for enlistment.—The following conditions are causes for rejection:

a. Active pulmonary tuberculosis.

b. Inactive pulmonary tuberculosis, if extensive.

c. Acute or chronic pleurisy, or empyema.

d. Pneumothorax or hydrothorax.

e. Chronic bronchitis, chronic pneumonia, pulmonary emphysema, asthma, or bronchiectasis.

f. Actinomycosis, hydatid cysts, or abscess of the lung.

g. Tumor of lungs, pleura or mediastinum.

62. Standards for candidates for commission.—*a.* No candidate with inactive pulmonary tuberculosis will be accepted for commission in the Regular Army.

b. In other respects the standards are the same as for applicants for enlistment.

SECTION XV

THE HEART AND BLOOD VESSELS

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63. Methods of examination of heart and blood vessels.—*a. General.*—The applicant should stand before the examiner with direct light falling upon his chest. He should stand at ease, with the arms relaxed and hanging by his sides. The examiner should not permit the applicant to move his body from side to side or twist it in an endeavor to assist in the examination, as these maneuvers may distort landmarks and increase muscular resistance of the chest wall. The heart should be examined by the following methods: Inspection, palpation, percussion, auscultation, and when considered necessary by mensuration. Blood-pressure readings and palpation of the pulse are required for candidates for commission and for applicants for enlistment when considered necessary.

b. Inspection.—Begin from above downward, with especial reference to the following: Condition and color of skin and mucous membranes, eyes for arcus senilis; visible pulsations of the vessels of the neck; enlargement of the thyroid gland; the shape of the chest for any malformation which might change the normal relations of the heart; pulsations in the suprasternal notch, and in the second interspaces to right and left of the sternum; character of the precordial impulse, and the location and character of the maximum impulse, epigastric pulsations or pulsations in the hepatic region, and any pulsations or retractions in the back.

c. Palpation.—Palpate first for the detection of thrills over the carotids (aortic stenosis), thyroid gland (exophthalmic goiter), suprasternal notch (aneurysm), apex of heart (mitral stenosis), and at the base (aortic stenosis). Use palms of hands in palpating and use light pressure, as hard pressure may obliterate a thrill. To locate the maximum cardiac impulse, have the applicant stoop and throw shoulders slightly forward, thus bringing heart into the closest possible relation with the chest wall. Palpate both radials at the same time for equality in rate and volume. Run the finger along the artery to note any changes in its walls. Place the palm of one hand over the heart and fingers of the other over the radial to see if all ventricular contractions are transmitted. Palpate to determine the degree of tension or compressibility of the pulse, the finger nearest the patient's hand compressing the artery and preventing any impulse reaching the middle or palpating finger from the deep palmar arch. The middle finger is the palpating finger, and the third is to make gradually increasing pressure upon the artery to obliterate the pulse wave and estimate its volume. In estimating pulse rates, the excitement of undergoing a physical examination must be considered and a rate of 90 may be considered normal, provided the heart responds normally to the exercise test. A rate of 50 or below should excite suspicion of heart block and be made the subject of further investigation. Rates of 100 or over should be investigated with a view to the exclusion of heart lesions and hyperthyroidism.

d. Percussion.—Light mediate percussion should be used. The right and left cardiac borders, as well as the diameter of the transverse arch may be determined by percussion. In doubtful cases where it is important to determine the actual cardiac boundaries, X-ray pictures should be taken and also cardiac mensuration made.

e. Mensuration.—Draw a line down the midsternum, from the suprasternal notch to the tip of the ensiform cartilage. Measurements are made at right angles to this line, at the second interspace (aortic dullness), at the fourth interspace to the right for any increase in the right border, and at the fifth interspace to the left for any increase in the left border.

The following measurements may be considered normal for the average young adult:

From midsternal line to right border at fourth interspace, 3 cm.

From midsternal line to left border along fifth interspace, $8\frac{1}{2}$ cm.

The normal aortic dullness at the second interspace to the right and left of the midsternal line is $5\frac{1}{2}$ cm.

f. Auscultation.—In auscultating the heart, the examiner should bear in mind the four points where the normal sounds of the heart are heard with maximum intensity, viz:

- (1) Aortic area, second interspace to right of sternum. Here the second sound is distinct.
- (2) Tricuspid area, at the junction of the fifth rib with the sternum. Here the first sound is distinct.
- (3) Pulmonic area, second interspace to left of sternum. Here the second sound is most distinct.
- (4) Mitral area, fifth interspace to left of sternum. Here the first sound is most clearly heard.

In doubtful cases the examiner should make inquiry into the use of alcohol or tobacco, overindulgence in athletics, habitual use of coal-tar derivatives, or narcotic drugs. He should also ascertain whether the applicant has had any of the following diseases: Scarlet fever, chorea, diphtheria, measles, rheumatic fever, tonsillitis, influenza, typhoid fever, syphilis, gonorrhea, tuberculosis, chronic focal infections, etc.

64. Examination after exercise.—Examiners will use judgment and discretion in applying the exercise test to those who present evidence of incompetency of the heart. An exercise test is required in order to determine the efficiency of the heart muscle. Have the applicant hop 100 times on one foot, clearing the floor about 1 inch at each hop, or engage in an equivalent exercise. Take pulse rate before exercise, immediately after com-

pletion of test, and two minutes later. A heart muscle may be said to be efficient if the pulse rate taken two minutes after the above exercise approximates the initial rate.

Example of normal response:

Before exercise, 80.

Immediately after, 120.

Two minutes after, 84.

Immediately after the exercise auscultation should be repeated with particular reference to the detection of murmurs previously inaudible. Note should be made of the degree of dyspnea and other symptoms of circulatory failure, such as cyanosis.

65. Consideration of blood pressure.—In considering the blood pressure, due regard must be given to the age of the applicant and to physiological causes, such as excitement, recent exercises, and digestion. The condition of the arteries, the tenseness of the pulse, and the degree of accentuation of the aortic second sound must be taken into consideration, as will also the relation between the systolic and diastolic pressure. No applicant will be rejected as a result of a single reading. When the blood pressure estimation at the first examination is regarded as abnormal, or in case of doubt, the procedure will be repeated twice daily (in the morning and in the afternoon) for a sufficient number of days to enable the examiner to arrive at a definite conclusion.

66. Interpretation of abnormal signs and symptoms.—The following principles are laid down for the guidance of examiners in their interpretation of abnormal signs and symptoms. In many instances the interpretation must be purely individual and based on the cumulative evidence of a number of relatively slight deviations from the normal. It should be strongly emphasized that, given a heart of normal size and responding normally to effort, any murmur is to be considered functional and insignificant unless it can be positively demonstrated that it is a mitral or aortic diastolic murmur, or unless a definite history of rheumatic fever or other acute infection or evidence of chronic focal infection is obtained. It should also be constantly borne in mind that the excitement of the examination may produce violent and rapid heart action, often associated with a transient systolic murmur, which conditions may erroneously be attributed to the effects of exertion. These conditions usually disappear promptly in the recumbent posture, but the examiner must be careful to distinguish the excitable individuals and take measures to eliminate psychic influences from the test so far as possible.

67. Hypertrophy and dilatation.—An apex beat located at or beyond the left nipple line, or below the sixth rib, and of heaving character, indicates an enlargement sufficient to disqualify for military service. Its cause, either valvular disease or hypertension in the majority of cases, should be sought for. Enlargement should not be made a primary diagnosis unless careful examination fails to reveal a cause.

68. Interpretation of murmurs.—It is most important that cardiac lesions be correctly recognized, and that accidental or functional murmurs or defects which do not indicate organic disease be not misconstrued and considered as cause for rejection. Ordinarily no murmur should be declared organic unless secondary physical signs can be demonstrated. In questionable cases the history, especially of past rheumatic fever or other acute infection, or chronic focal infection, should be carefully elicited.

69. Accidental murmurs.—Cardiac murmurs are the most certain physical signs by which valvular disease may be recognized and its location determined, but murmurs are very frequent in the absence of valvular lesions and may occur in perfectly healthy hearts, especially under the influence of excitement and exertion. Such accidental murmurs are always systolic in time. The most frequent of these are—

a. Those heard at the apex on excitement.

b. Those heard over the second and third left interspaces during expiration, disappearing during forced inspiration. These are particularly common in men with flexible chests, who can produce extreme forced expiration, and under such circumstances may be associated with definite thrill.

c. Systolic accentuation of the respiratory murmur, especially on inspiration, heard near the apex over the back.

d. Cardio-respiratory murmurs occasioned by movements of the heart against residual air in a part of the lung overlapping the heart. These are usually increased on inspiration and decreased on expiration, and at times disappear completely on holding the breath.

e. Murmurs which appear to depend on the position of the heart for their production; that is, appearing in the standing and disappearing in the recumbent position, or vice versa.

f. Murmurs which are present before exercise and disappear after exercise, owing to the increased tonicity of the heart muscle caused by exercise.

g. Prolongation of mitral first sound, miscalled murmurs.

h. Systolic murmurs over the base occurring during the course of acute infections and in all likelihood due to relaxed tone of the heart muscle.

i. Pleural and pericardial friction rubs which usually disappear when the applicant holds his breath and are accompanied by other physical signs.

70. Systolic murmurs.—*a.* Systolic murmurs unassociated with history of rheumatic fever, or other acute infection, with enlargement of the heart, with alteration of the first sound, or with abnormal response to exercise may also be considered as without significance.

b. Loud systolic murmurs, audible at the apex and in the left back, if associated with any enlargement of the heart, with a snapping first sound, or accentuation of the pulmonic second sound, indicate organic disease, disqualifying for military service; also harsh and blowing murmurs, and ones persisting throughout systole, transmitted to the axilla or back, if associated with a history of rheumatic fever, or other acute infection, or with poor or dubious response to exercise.

c. Systolic murmurs at the base, except as specified above, especially those heard in the second right intercostal space, require more careful scrutiny. They may be due to disease of the aortic valves. In this case they should be harsh, conveyed well into the neck, associated with an aortic diastolic murmur, with thrill, or with a marked enfeeblement of the aortic second sound. They are more often due to dilatation of the aorta, either syphilitic or arteriosclerotic. The other signs of dilatation should then be sought, viz, increased dullness in the first and second interspaces to either side of the manubrium, pulsation in this area, and accentuation of the aortic second sound. In doubtful cases, X-ray examination and Wassermann test should be made.

71. Diastolic murmurs.—*a.* All diastolic murmurs, at apex of base, including presystolic murmurs, should be considered suggestive of organic disease. The soft, low-pitched diastolic murmur of aortic insufficiency may be audible to the ear when not heard through the stethoscope. The secondary signs should be sought for, viz, enlargement of one or both sides of the heart, alteration of the first or second sound, particularly a snapping first sound and accentuated pulmonic second sound in mitral disease, and the characteristic pulse of aortic insufficiency. In doubtful cases a definite history of rheumatic fever or other acute infection may be given weight.

b. It should be borne in mind that the characteristic presystolic murmur in certain cases of mitral stenosis may not be audible during rest. It is therefore important in every doubtful case that auscultation be made immediately after the exercise test and in both the erect and the recumbent positions. On the other hand, many cases of tachycardia or overacting heart present physical signs very suggestive of mitral stenosis (sharp, tapping apex beat, sharp, loud, first sound, suggestion of apical thrill, etc.), and the diagnosis of mitral stenosis should not be made unless a distinct presystolic or diastolic murmur is heard. A presystolic thrill when present at or near the heart's apex is practically pathognomonic of mitral stenosis.

72. Standards for applicants for enlistment.—The following conditions are causes for rejection:

a. All valvular diseases of the heart.

b. Hypertrophy or dilatation of the heart, as indicated in paragraph 67.

- c.* Pericarditis, endocarditis, myocarditis, or angina pectoris.
 - d.* A heart rate of 100 or over, or of 50 or under, when these are proved to be persistent in the recumbent posture and on observation and reexamination over a sufficient period of time.
 - e.* Marked cardiac arrhythmia or irregularity.
 - f.* Arteriosclerosis.
 - g.* Hypertension evidenced by a persistent systolic blood pressure above 150. In persons under 25 years of age a persistent systolic pressure above 140 is cause for rejection.
 - h.* Aneurysm of any variety in any situation.
 - i.* Intermittent claudication.
 - j.* Raynaud's disease.
 - k.* Thrombophlebitis of one or more extremities, if there is a persistence of the thrombus or any evidence of obstruction to circulation in the involved vein or veins.
73. Standards for candidates for commission.—*a.* No candidate with a systolic murmur at the apex which is transmitted to axilla or angle of scapula will be accepted for commission in the Regular Army.
- b.* In other respects the standards are the same as for applicants for enlistment.

SECTION XVI

THE ABDOMEN

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74. Examination for disease.—The abdomen will be examined by inspection and if necessary by palpation and percussion. When indicated, X-ray examinations and laboratory tests will be made. Examination for inguinal, femoral, and ventral hernia will be made by both inspection and palpation.

75. Observation for uncinariasis and malaria.—Applicants accepted from regions in which uncinariasis or malaria is prevalent, and who present symptoms of anemia or enlargement of the spleen, should be placed under observation for these diseases (examination of feces and blood). This applies also to the dysenteries, especially the entamebic form.

76. Standards for applicants for enlistment.—The following conditions are causes for rejection:

- a.* Wounds, injuries, cicatrices, or muscular ruptures of the abdominal walls sufficient to interfere with function.
- b.* Fistulae from visceral or bony lesions or following operation.
- c.* Hernia of any variety.
- d.* Large tumors of the abdominal walls.
- e.* Scar pain, if severe.
- f.* Chronic diseases of the stomach and intestines.
- g.* Gastroenterostomy for relief of gastric or duodenal ulcer.
- h.* Blood in the feces unless shown to be due to unimportant causes.
- i.* Ptosis of the stomach or intestines.
- j.* Chronic appendicitis.
- k.* Chronic diseases of the liver, gall bladder, pancreas, or spleen.
- l.* Chronic peritonitis or peritoneal adhesions.
- m.* Chronic enlargement of the liver.
- n.* Chronic enlargement of the spleen, if marked.
- o.* Jaundice.

- p.* Proctitis or stricture of the rectum.
- q.* Hemorrhoids. (See Section XVII.)
- r.* Fistula in ano. (See Section XVII.)
- s.* Incontinence of feces.
- t.* Uncinariasis, if attended with marked anemia or other evidence of grave constitutional disturbance.

77. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XVII

THE PELVIS, INCLUDING THE SACRO-ILIAC AND LUMBO-SACRAL JOINTS

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78. Examination for disease.—The pelvis will be examined by inspection and if necessary by palpation. To inspect the anal region the applicant will be directed to bend forward from the hip and to draw apart the buttocks with both hands. Digital examination of the rectum and proctoscopy will be used if necessary.

79. Standards for applicants for enlistment.—The following conditions are causes for rejection:

- a.* Malformation and deformities of the pelvis sufficient to interfere with function.
- b.* Disease of the sacro-iliac or lumbo-sacral joints.
- c.* Urinary fistula.
- d.* Stricture or prolapse of the rectum.
- e.* Fissure of the anus or pruritis ani.
- f.* Fistula in ano or ischio-rectal abscess.
- g.* External hemorrhoids sufficient in size to produce marked symptoms. Internal hemorrhoids, if large or accompanied with hemorrhage, or protruding intermittently or constantly.

80. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XVIII

THE GENITO-URINARY SYSTEM, INCLUDING VENEREAL DISEASES

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81. Methods of examination.—The genito-urinary organs will be examined by inspection and palpation. Evidence of venereal disease or malformation will be searched for. The glans-penis and corona will be exposed and the penis stripped. Both sides of the scrotum will be palpated, as will also the inguinal glands. When necessary, further examination by the X-ray, by urethral instrumentation, and by laboratory methods will be conducted. The urine of all applicants for enlistment will be examined for albumin and specific gravity, and if the latter is over 1025 will also be tested for the presence of sugar. Urinalysis, includ-

ing tests for albumin, specific gravity, and sugar, and a microscopic examination of the sediment, will be made in the case of all candidates for commission, the urine being voided in the presence of one of the examiners.

82. Procedure when albumin or casts are found.—The term "albuminuria" will not ordinarily be used as a cause for rejection, nor does its presence alone justify a diagnosis of nephritis. When albumin or casts are found in the urine the applicant will be retained under observation and daily complete examinations of the urine will be made for at least five days, unless the presence of albumin and casts is associated with enlargement of the left heart, high blood pressure, and other evidence of cardio-vascular disturbance to such a degree that a diagnosis of chronic nephritis may be made immediately. When albumin is constantly or intermittently present the underlying pathological condition must, if possible, be determined and stated as the cause for rejection, but if albuminuria is present daily during a period of six days it should be regarded as reason for rejection, even if the origin can not be determined.

83. Procedure when specific gravity is abnormally low.—When the specific gravity of the specimen first examined is abnormally low, further observation of the applicant and repeated complete urinary examinations are indicated.

84. Procedure when glycosuria is detected.—If glucose is found in the urine at the first examination, further observation is indicated, including an estimation of the 24-hour amount of urine and the employment of more than one test to demonstrate the possible existence of diabetes. When considered necessary, blood sugar estimations should also be made.

85. Wassermann test.—The Wassermann test will be required on all candidates for commission in the Regular Army only. Whenever a double plus reaction is obtained, another specimen will be examined after a lapse of one week. The Wassermann test will not be employed as a routine measure of examination for applicants for enlistment, but should be used as an aid to diagnosis in doubtful cases.

86. Standards for applicants for enlistment.—The following conditions are causes for rejection:

- a.* Acute or chronic nephritis, or diabetes mellitus or insipidus.
- b.* Blood, pus, or albumin in the urine, if persistent for six days.
- c.* Floating kidney, hydronephrosis, pyonephrosis, pyelitis, tumors of the kidneys, or renal calculi.
- d.* Acute or chronic cystitis.
- e.* Vesical calculi, tumors of the bladder, incontinence of urine, enuresis, or retention of urine.
- f.* Hypertrophy or abscess of the prostate gland, or chronic prostatitis.
- g.* Urethral stricture or urinary fistula.
- h.* Epispadias or hypospadias when the urine cannot be ejected in such a manner as to avoid soiling of clothing or surroundings, or when accompanied by evidence of chronic colon bacillus infection of the genito-urinary tract.
- i.* Phimosis when prepuce is adherent in whole or in part to the glans.
- j.* Hermaphroditism.
- k.* Amputation of the penis if it interferes with micturition.
- l.* Varicocele, if large and painful, or hydrocele if large.
- m.* Pronounced atrophy of both testicles or loss of both.
- n.* Undescended testicle when the organ is in the inguinal canal or when outside the canal and lying against the pubic bone. Infantile genital organs.
- o.* Chronic orchitis or epididymitis.
- p.* Syphilis in any stage.
- q.* Gonococcus infections, acute or chronic (including gonorrheal arthritis), chancroids, or buboes.

87. Standards for candidates for commission.—*a.* No candidate who is found to have a double plus Wassermann reaction on two occasions (see paragraph 85) will be accepted for commission in the Regular Army. In such cases, if no other evidences of syphilis can be found, the cause of rejection will be recorded not as syphilis but as "Double plus Wassermann."

b. In other respects the standards are the same as for applicants for enlistment.

SECTION XIX

THE EXTREMITIES

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88. Examination for defects.—The extremities will be carefully examined for deformities, old fractures and dislocations, amputations, partially flexed or ankylosed joints, impaired functions of any degree, varicose veins, and oedema. The feet will be especially examined for flat foot, corns, ingrowing nails, bunions, deformed or missing toes, hyperidrosis, bromidrosis, and clubfoot. When any degree of flat foot is found, the strength of the feet should be ascertained by requiring the applicant to hop on the toes of each foot for a sufficient time and by requiring him to alight on the toes after jumping up several times.

89. Standards for applicants for enlistment.—The following conditions are causes for rejection :

a. All anomalies in the number, the form, the proportion, and the movements of the extremities which produce noticeable deformity or interfere with function.

b. Atrophy of the muscles of any part, if progressive or if sufficient to interfere with function.

c. Benign tumors if sufficiently large to interfere with function.

d. Ununited fractures, fractures with shortening or callous formation sufficient to interfere with function, old dislocations unreduced or partially reduced, complete or partial ankylosis of a joint, or relaxed articular ligaments permitting of frequent voluntary or involuntary displacement.

e. Reduced dislocations or united fractures with incomplete restoration of function.

f. Amputation of any portion of a limb, except fingers or toes, or resection of a joint.

g. Excessive curvature of a long bone or extensive, deep or adherent scars interfering with motion.

h. Severe sprains.

i. Diseases of the bones or joints.

j. Chronic synovitis, or floating cartilage, or other internal derangement in a joint.

k. Varicose veins in an extremity when they cover a large area or are markedly tortuous or much dilated, or are associated with oedema, varicocele, or hemorrhoids, or are accompanied by subjective symptoms.

l. Varices of any kind situated in the leg below the knee if associated with varicose ulcers or scars from old ulcerations.

m. Chronic oedema of a limb.

n. Chronic and obstinate neuralgias, particularly sciatica.

o. Deviation of the normal axis of the forearm to such a degree as to interfere with the proper execution of the manual of arms.

p. Adherent or united fingers (web fingers).

q. Permanent flexion or extension of one or more fingers, as well as irremediable loss of motion of these parts, if sufficient to interfere with proper execution of the manual of arms.

- r.* Total loss of either thumb.
 - s.* Mutilation of either thumb to such an extent as to produce material loss of flexion or strength of the member.
 - t.* Loss of more than one phalanx of the right index finger.
 - u.* Loss of the terminal and middle phalanges of any two fingers on the same hand.
 - v.* Entire loss of any finger except the little finger of either hand, or the ring finger of left hand.
 - w.* Perceptible lameness or limping.
 - x.* Knock-knee when the applicant is unable to take the position of a soldier, when the gait is clumsy or ungainly, or when subjective symptoms of weakness are present.
 - y.* Bowlegs if so marked as to produce noticeable deformity when the applicant is dressed.
 - z.* Clubfoot unless the defect is so slight as to produce no symptoms during vigorous exercise.
 - aa.* Pes cavus if extreme and causing symptoms.
 - ab.* Flat foot when accompanied with symptoms of weak foot or when the foot is weak on test. Pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, are disqualifying regardless of the presence or absence of subjective symptoms.
 - ac.* Loss of either great toe or loss of any two toes on the same foot.
 - ad.* Webbing of all the toes.
 - ae.* Overriding or superposition of any of the toes to such a degree as will produce pain when wearing the military shoe.
 - af.* Ingrowing toe nails when marked or painful.
 - ag.* Hallux valgus when sufficiently marked to interfere with locomotion or when accompanied with a painful bunion.
 - ah.* Bunions sufficiently pronounced to interfere with function.
 - ai.* Hammer toes when existing to such a degree as to interfere with function when wearing the military shoe.
 - aj.* Corns or callous on the sole of the foot when they are tender or painful.
 - ak.* Hyperidrosis or bromidrosis when present to a marked degree.
 - al.* Habitually sodden feet with blistered skin.
90. Standards for candidates for commission.—The same as for applicants for enlistment.

SECTION XX

THE NERVOUS SYSTEM

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91. General considerations.—The detection of mental and nervous diseases is perhaps the most difficult part of the examination of applicants. At the time of examination there may be no obvious defects such as present themselves in other pathological conditions. Each examiner should constantly be on the alert to detect any sign of such disorders in the applicants and should promptly report suspicious symptoms he may note to the chief examiner, or to the officer conducting the neuropsychiatric portion of the examination, who should if possible be a skilled specialist. Every effort must be made to reject the mentally deficient and those showing evidence of serious nervous affections. The importance and value of a thorough and effective examination of the applicants' mental suit-

ability for Army service cannot be overestimated. Morons and those mentally deficient are always a continuous source of weakness and detriment to the Army from the day they are accepted until they are separated from the service. Such men should under no circumstances be accepted for enlistment.

92. *Methods of examination.*—The applicant will be required to stand erect with the inner borders of the feet together, arms horizontal, hands extended, fingers apart, and eyes closed, and will be examined for tremors and nervous instability (Romberg sign). The pupillary reactions to light and distance and the knee jerks should always be tested, and in doubtful cases the other reflexes. When desirable, laboratory tests will be made.

93. *Résumé of the more common abnormal conditions.*—The brief summary regarding certain stigmata of degeneration, drug addictions, and nervous and mental diseases which follow is intended as a general guide for examiners. In estimating the value of the various marks of degeneracy, the occurrence of a very few in any individual case would not justify classification of the case as a defective. The presence, however, of numerous stigmata indicates a probable instability in the nervous organization that is disqualifying for the military service.

a. Anatomical stigmata of degeneration.—Cranial abnormalities in outline, capacity, or dimensions; excessive development of the occipital protuberance and ridges, the frontal eminences, and the mastoid processes; reduction of the facial angle; asymmetrical facial development; lower jaw disproportionately large and prognathic; hard palate sharply vaulted; dental arches narrowed or angular; teeth defective or misplaced; ears disproportionate in size or malformed; extreme refractive anomalies and strabismus; deviation of the nose; septal deformities; harelip, cleft palate, remnants of branchial clefts; spina bifida, sacral growths of hair; deep sternal furrows and concavities; disproportion between thorax and abdomen; upper and lower limbs disproportioned to each other or to the trunk; abnormality in size of hands or feet; tendency to left-sided overdevelopment; deformities of the fingers; syndactyly; excessive length or shortness of the fingers; undersize of the ring and little fingers; genitalia undeveloped; hypospadias; epispadias; scrotal fissure; albinism; melanism; multiple naevi; defective development of hair and nails. The degenerate physique as a whole is often marked by diminished stature and inferior vigor; males may present the general body conformation of the opposite sex, with sloping narrow shoulders, broad hips, excessive pectoral and pubic adipose deposits, with lack of masculine hirsute and muscular marking.

b. Functional stigmata of degeneration.—Defective mental qualities; moral delinquencies, such as willfulness, deceitfulness, indecency; stammering; urinary incontinence; regurgitation and rechewing of food; color blindness; perverted tastes and cravings leading to alcoholism and drug habits, sexual perversion.

c. Chronic alcoholism.—Suffused eyes; prominent superficial blood vessels of the nose and cheek; flabby, bloated face; reddened aspect of the face; red or pale purplish discoloration of mucous membrane of the pharynx and soft palate; muscular tremor of the protruded tongue and extended fingers; tremulous handwriting.

d. Drug habit.—Peculiar pallor and dryness of the skin; needle marks and scars on skin of arms and thighs; in opium users, contracted pupils; in users of cocaine, widely dilated pupils.

e. Dementia praecox.—Indifference, apathy, withdrawal from environment, ideas of reference and persecution; feelings that the mind is being tampered with or that thought is being controlled by hypnotic, spiritualistic, or other mysterious agencies; hallucinations of hearing; bodily hallucinations, frequently of electrical or sexual character; meaningless smiles; in general, inappropriate emotional reaction and lack of connectedness in conversation. There may be sudden emotional or motor outbursts. The history of family life and of school, vocational, and personal career will usually show erratic and more or less irrational conduct.

f. Manic-depressive insanity.—Mild depression, with or without feeling of inadequacy; mild manic states with exhilaration, talkativeness, and overactivity.

g. Paresis (general paralysis).—The diagnosis of paresis may be made when at the examination of the applicant a majority of the following signs and symptoms are demonstrated: Argyll-Robertson pupil or pupils; facial tremor; speech defect in test phrases, and in the slurring or distortion of words in conversation; writing defects, consisting of omissions and the distortion of words; apathetic, depressed, or euphoric mood. These applicants may show memory loss or discrepancies in relating facts of life; the knee jerks may be plus, minus, or normal.

h. Tabes dorsalis (locomotor ataxia).—The diagnosis of this disease should be made when at the examination of the applicant several of the following signs and symptoms are present: Argyll-Robertson pupil or pupils; absent knee jerk; Romberg sign; ataxia of hands or legs (especially when the eyes are closed), hypotonia, anesthetic areas of the skin. The history of locomotor ataxia is usually that of slow progression, of failing sexual power, and of pains in the legs or back which are often described as rheumatic.

i. Cerebrospinal syphilis.—The prominent diagnostic signs and symptoms are headaches, varying deep and superficial reflexes, pupillary changes, ptosis, ocular palsies, facial paresis. The mental state is normal, dull, or apathetic. Comparative motor weakness may occur on one side of the body or in one extremity.

j. Multiple sclerosis.—The diagnosis of this disease rests upon the following signs and symptoms: Intention tremor, nystagmus, absent abdominal reflexes, increased tendon reflexes, and scanning speech. In cases of this kind the history obtained is not characteristic, but sometimes there may be a history of urinary disturbance.

k. Paraplegia.—The diagnosis of paraplegia from whatever cause will rest upon weakness of the lower extremities, associated with lost or increased knee jerk, Babinski reflex, disturbances of the sphincters of the rectum and bladder, and sometimes a girdle sensation. Sensory disturbance of the skin may or may not be present. Muscle sensibility may be diminished.

l. Syringomyelia.—Syringomyelia is usually evidenced by more or less loss of power and atrophy of groups of muscles of one or more extremities with disturbance of the sensations of the skin, more especially in the form of analgesias and diminution of the temperature sense. If in the upper dorsal cord, it is often associated with stooped shoulder posture; if in the lower dorsal, with weakness in one or both lower extremities.

m. Muscular atrophies and dystrophies.—The signs and symptoms of muscular atrophies and dystrophies are atrophy of the small muscles of the hand and of the muscle groups of the shoulder, associated with fibrillary twitchings. The history of these defects rarely furnishes reliable data, although it will usually be found that the applicant has shown evidences of awkwardness. There is never a history of pain in the affected muscles.

n. Multiple neuritis.—The chief manifestations are more or less pain in the course of the affected nerves, with tenderness over the trunks of the nerves and of the muscles supplied by them; lessened muscular power of varying degrees; more or less atrophy of muscles, with or without contraction; and evidences of trophic changes of the skin. The deep and superficial reflexes may be diminished or absent; the sphincters are not involved. A history of recent infectious disease or of exposure to poisons such as alcohol, lead, or arsenic is of importance.

o. Mental deficiency and moron state.—Mental deficiency is that state in which the mind has failed to attain normal development. The term "moron" is applied to an individual with defective mentality, but who possesses a greater degree of intelligence than the imbecile and the idiot. In all cases where there is any question as to the degree of mental development of the applicant, he will be given the Stanford revision of the Binet-Simon test; no applicant will be accepted who by this test shows a mental age of 10 years or less.

p. Constitutional psychopathic states.—There is a large group of individuals, who, though not necessarily suffering from epileptic, psychotic, or psychoneurotic symptoms,

alcoholic or drug addiction, or feeble-mindedness in the strict sense of the term, are nevertheless incapable of attaining a satisfactory adjustment to the average environment of civilized society. This group is very heterogeneous, yet there is much evidence, in family and personal histories and in clinical manifestations, to show that the various conditions comprised in it are in some way related to one another and to other neuropathic conditions. A study of the individual's past life readily shows a psychopathic makeup, if one exists. The types are—

- (1) Inadequate personality.
- (2) Paranoid personality.
- (3) Emotional instability.
- (4) Criminalism.
- (5) Pathological lying.
- (6) Sexual psychopathy.
- (7) Nomadism.

q. Psychoneuroses: Hysteria, neurasthenia, and psychasthenia.—These conditions being functional, often with no objective signs, may escape notice. Such individuals show emotional disturbances, have hypochondriacal complaints, undue fatigability, and general nervous instability. The history of these conditions and of interference with progress in civil life is important.

r. Epilepsy.—History of dizziness (without definite cause), many severe headaches, and undue muscular tire in early morning are often due to epilepsy. Unexplained scars on tongue, chin, or face given reason to suspect epilepsy. Epileptics often refer to seizures as "fainting fits" or "spells of dizziness."

s. Head injuries.—History of severe head injuries must be fully investigated and persistent symptoms referable to trauma should be carefully considered. Change in disposition or shifting occupational history, following accident, should be regarded as disqualifying.

t. Peripheral nerve injuries.—These conditions are manifested by history of injury with localized motor or sensory disturbances. Any such case with an incomplete regeneration is a poor risk.

u. Endocrinopathies.—Functional disturbances of ductless glands are very important in the production of neuropsychiatric conditions. The applicant should be closely observed for evidences of such functional disturbances as goiter, exophthalmos, tremors, tachycardia, acromegaly, myxoedema, cretinism, smooth glassy skin, brittle nails, absent or unnatural hair distribution, faulty skeletal development, infantile or hypertrophied genitals, scanty and downy beard, female figure, and vaso-motor disturbances.

94. Standards for applicants for enlistment.—The following conditions are causes for rejection:

- a.* Insanity, epilepsy, or convulsions of any character, or history thereof.
- b.* Idiocy, imbecility, mental deficiency, or moronism (an applicant having a mental age of 10 years or less).
- c.* Constitutional psychopathic states.
- d.* Chronic alcoholism or drug addiction.
- e.* Locomotor ataxia, paresis, or cerebrospinal syphilis.
- f.* Multiple sclerosis, syringomyelia, paralyses, paraplegia, monoplegia, hemiplegia, or hemiparesis.
- g.* Psychoneurosis, neurasthenia, psychasthenia, hysteria, hysterical paralysis, or hysterical stigmata.
- h.* Chorea or marked muscular tremors.
- i.* Somnambulism, or history thereof.
- j.* Neuritis, beriberi, or severe neuralgia.
- k.* Muscular atrophies and dystrophies.
- l.* Stuttering or stammering of such degree that it would interfere with performance of military duties.

m. Unequal or irregular pupils, unless cause is definitely determined to be other than neurological.

n. Brain tumors.

o. History of having been committed to an institution for the care of the insane.

p. History of injury to skull, with secondary symptoms, or any evidence of impaired nervous function.

q. History of excessive nervousness, or depression to an undue extent.

r. Endocrine disturbances that can be diagnosed by ordinary examination.

s. Injuries involving peripheral nerves which result in impaired function to an extent that would interfere with the performance of military duty.

t. Other organic or severe functional diseases of the nervous system.

95. Standards for candidates for commission.—The same as for applicants for enlistment, except as to mentality, which will be as prescribed in other regulations.

[A.G. 300.33 (4-27-23).]

BY ORDER OF THE SECRETARY OF WAR:

JOHN J. PERSHING,
General of the Armies,
Chief of Staff.

OFFICIAL:

ROBERT C. DAVIS,
The Adjutant General.

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STANDARDS OF PHYSICAL EXAMINATION FOR ENTRANCE INTO THE REGULAR
ARMY, NATIONAL GUARD, AND ORGANIZED RESERVES

Changes }
No. 5 }

WAR DEPARTMENT,
WASHINGTON, August 17, 1940.

AR 40-105, May 29, 1923, is changed as follows:

2. Application of standards to candidates for commission.—*a.* The standards, as prescribed for candidates for commission, will apply uniformly to those seeking commission in the Regular Army, in the National Guard of the United States, and in the Officers' Reserve Corps, and to those seeking Federal recognition as officers of the National Guard, except as otherwise provided in these regulations.

[A.G. 702 (2-6-40).]

b. (As changed by C 4, Feb. 12, 1936). Candidates for commission must be free from any defect or pathological condition which would interfere with the performance of the duty expected of them in the Army, or which would as a result of military service be especially liable to undergo progressive change or to become the basis of a claim against the Government in the event of call to active service. For action in respect to recommending waiver of physical defects, see paragraph 13.

[A.G. 702 (11-13-35).]

12. Applicants for enlistment.—*a. General.*—The physical examination of applicants for enlistment will be made by medical officers of the Army or by contract surgeons, unless special authority for examination by a civilian physician is granted by the War Department. The results of the examination will be recorded on W.D., A.G.O. Form No. 21 (Enlistment Record, Regular Army). The examination will be thorough in every detail and the examiner may have doubtful cases admitted to a military hospital for study and observation during a period of not to exceed 6 days in order that a definite conclusion may be reached regarding their desirability as enlisted men. Applicants unfit for service by reason of a disease, not of a serious nature and which it is believed can be cured within a short time, may be admitted to a military hospital for treatment with a view to their enlistment upon recovery. The physical examination will be made complete in each case, even though a disqualifying defect is discovered, in order to ascertain whether or not any other defects exist. Every defect noted, whether or not it is disqualifying, will be entered on the proper form. No applicant will be accepted for enlistment who does not conform to the standards set forth herein. In the case of specially desirable applicants who have some defect which in the opinion of the examiner will not interfere with the performance of their military duties, request for a waiver of the defect may be made as provided in paragraph 19, AR 600-750.

b. Applicants expecting to enter the United States Military Academy.—Every applicant who is known to be enlisting with the expectation of entering the United States Military Academy at any time after enlistment will be examined according to the standards prescribed in paragraph 1, AR 40-100.

[A.G. 702 (11-13-35).]

13. Candidates for commission and applicants for appointment as warrant officers.—The physical examination of candidates for commission will be conducted by the medical members of the examining board and will be recorded on W.D., A.G.O. Form No. 63 (Report of Physical Examination), except for flying officers, whose examination will be recorded on W.D., A.G.O. Form No. 64 (Physical Examination for Flying). Each candidate will be subjected to a thorough and rigid physical examination. All medical officers engaged in making these examinations are enjoined to exercise the greatest care and diligence in this procedure and to assure themselves that all findings are fully and accurately recorded. Sufficient time must be given to this examination to make certain that every detail is thoroughly carried out.

*These changes supersede C 4, February 12, 1936.

Each defect noted must be recorded in such a clear and complete manner that no question as to its character, degree, and significance can arise when the report of the board is reviewed in the War Department. When a candidate is rejected, the cause must be clearly established and so definitely recorded as to be conclusive regarding the propriety of the rejection. Symptoms of disease will not be noted as causes of rejection if it is possible to arrive at a definite diagnosis. In every instance the disease or disability for which a candidate is rejected will be entered in full. A candidate who does not conform to the standard of requirements will be rejected by the medical examiners. If the members of the examining board believe that a defect which is classified in these regulations as disqualifying should be waived in any particular case, recommendation to that effect may be submitted to the War Department. In making such recommendations the nature and degree of the defect and the reason for recommending waiver should be clearly stated. Candidates will not be accepted subject to the performance of surgical operations for the removal or cure of defects. The same physical standards will apply to all candidates for commission, regardless of the arm or service or grade in which appointment is desired, except as otherwise provided in these regulations.

The examination of an applicant for appointment to the grade of warrant officer, except warrant officer, Army Mine Planter Service, will be that prescribed herein for an applicant for enlistment. The examination of an applicant for appointment as warrant officer, Army Planter Service, will be that prescribed for a candidate for commission. Report of examination will be made on W.D., A.G.O. Form No. 63.

[A.G. 702 (6-24-38).]

14. Special examination for flying.—(As changed by C 4, Feb. 12, 1936). Candidates for commission as flying officers and applicants for enlistment as flying cadets will be given the physical examination required by AR 40-110. This physical examination for flying will be conducted only by medical officers specifically authorized to do so in accordance with the provisions of AR 40-110, and will be recorded on W.D., A.G.O. Form No. 64. This form, in the case of both candidates for commission as flying officers and applicants for enlistment as flying cadets, will be prepared in triplicate (in quadruplicate for National Guard candidates), one copy being retained by the flight surgeon making the physical examination, and the other copies to accompany the report of the board conducting the examination for appointment. In the case of an applicant for enlistment as a flying cadet, the medical officer conducting the physical examination for flying will at the same time make a complete physical examination in accordance with the provisions of these regulations and will record the result on W.D., A.G.O. Form No. 21. This form, when completed, will be given to the applicant by the medical officer who makes the examination, with instructions to present it to the recruiting officer to whom he applies for enlistment. If submitted within a period of 3 months from the date of its accomplishment, this report of physical examination on W.D., A.G.O. Form No. 21 will be accepted by the recruiting officer in lieu of any further examination, provided the applicant appears to be in good physical condition and gives no history of serious illness in the interim between the examination and the time he applies for enlistment. If a period of time in excess of 3 months has elapsed since the original examination, the recruiting officer will cause the applicant for enlistment as a flying cadet to be reexamined at the recruiting station, in order to determine if he still meets the physical requirements prescribed in these regulations. If the candidate was reported as physically qualified on the original examination and is considered as physically disqualified on the second examination, the reports of the two examinations will be forwarded to the War Department with recommendation for rejection, or for a waiver of the defects noted.

[A.G. 702 (11-13-35).]

18. Standards for candidates for commission.—*a.* For commission in all arms and services of the Regular Army, except in the Medical Department or the Corps of Chaplains, a

minimum vision of 20/40 in each eye, correctible with glasses to 20/20 in one eye and to 20/30 in the other eye, when no organic disease of either eye exists, is required.

b. For commission in the Medical Department or the Corps of Chaplains in the Regular Army, and for commission in all branches of the National Guard of the United States and of the Officers' Reserve Corps, and for Federal recognition as officers of the National Guard, a minimum vision of 20/100 in each eye, correctible with glasses to 20/20 in one eye and to 20/30 in the other eye, when no organic disease of either eye exists, is required.

[A.G. 702 (2-6-40).]

c. Color perception.

(1) Impairment of the sense of color perception in a pronounced degree is a cause for rejection. The minimum requirement for general qualification shall consist of the ability to distinguish and identify without confusion the color of an object, substance, material, or light that is uniformly colored a pure red; and of an object, substance, material or light that is uniformly colored a pure green.

(2) For commission in the Medical Department of the Regular Army impairment of the sense of color perception for red and green is cause for rejection.

d. In other respects the standards are the same as for applicants for enlistment.

[A.G. 702 (10-2-37) (1-28-38) (2-6-40).]

22. Standards for candidates for commission.—*a.* For commission, hearing in each ear must be 20/20.

b. In other respects the standards are the same as for applicants for enlistment.

28. Standards of height, weight, and chest measurement.

a. Standards for all applicants except Filipinos. (As changed by C 3, Nov. 15, 1932.)

CHART 1A

Height, inches	Weight (pounds)		Chest measurement at expiration (inches)	
	Standard	Minimum	Standard	Minimum
64.....	128	115	32 $\frac{1}{4}$	30 $\frac{1}{4}$
65.....	132	117	32 $\frac{1}{2}$	30 $\frac{1}{2}$
66.....	136	121	32 $\frac{3}{4}$	30 $\frac{3}{4}$
67.....	140	125	33	31
68.....	144	129	33 $\frac{1}{4}$	31 $\frac{1}{4}$
69.....	148	133	33 $\frac{1}{2}$	31 $\frac{1}{2}$
70.....	152	137	33 $\frac{3}{4}$	31 $\frac{3}{4}$
71.....	156	141	34	32
72.....	160	145	34 $\frac{1}{4}$	32 $\frac{1}{4}$
73.....	164	149	34 $\frac{1}{2}$	32 $\frac{1}{2}$
74.....	168	153	34 $\frac{3}{4}$	32 $\frac{3}{4}$
75.....	172	157	35	33
76.....	176	161	35 $\frac{1}{4}$	33 $\frac{1}{4}$
77.....	180	165	35 $\frac{1}{2}$	33 $\frac{1}{2}$
78.....	184	169	35 $\frac{3}{4}$	35 $\frac{3}{4}$

[A.G. 201.6 (10-14-32).]

31. Standards for applicants for enlistment.—*a.* (As changed by C 4, Feb. 12, 1936.) No applicant except Filipinos will be accepted who is less than 64 inches in height or weighs less than 115 pounds, or has a chest mobility of less than 2 inches.

b. (As changed by C 4, Feb. 12, 1936.) The standards as to relationship between height, weight, and chest measurement given in the tables in paragraph 28 relate to young men between 20 and 25 years of age, and in general an applicant will not be accepted whose weight and chest measurement are not proportionate to his height, as prescribed in these tables. In special cases when the applicant is active, has firm muscles, and is evidently vigorous and healthy, the minimum weight and chest measurements noted in the tables in paragraph 28 may be allowed. No applicant will be accepted who falls below the minimum requirements laid down in these tables.

[A.G. 702 (11-13-35).]

c. Variations in weight above the standard are disqualifying if sufficient to constitute such obesity as to interfere actually or potentially with normal physical activity, as may be evidenced by high blood pressure, a beginning nephritis, breaking down of the arches of the feet, or other defects incident to such condition. No applicant for original enlistment will be accepted for Cavalry service whose weight is in excess of 170 pounds.

* * * * *

[A.G. 702 (9-2-39).]

32. Standards for candidates for commission.—The same as for applicants for enlistment with the exception that the weight for height for age and the permissible variation therefrom will be in accordance with the standards for officers in paragraph 11, AR 40-100.

[A.G. 702 (8-2-39).]

48. Standards for candidates for commission.—The same as for applicants for enlistment.

[A.G. 702 (2-6-40).]

62. Standards for candidates for commission.—a. Chest roentgenograms will be required of every candidate for commission in the Regular Army. No candidate with roentgenological evidence of reinfection (adult) type pulmonary tuberculosis, active or inactive, will be accepted for commission in the Regular Army, and no candidate with roentgenological evidence of primary (childhood) type pulmonary tuberculosis will be accepted if the degree or extent of the involvement appears to be of present or future clinical significance. Chest roentgenograms will not be made routinely in the examination of applicants for commission in the National Guard of the United States or the Officers' Reserve Corps or in the case of those seeking Federal recognition as officers of the National Guard; however, the conditions stated in the preceding sentence, if disclosed, will be considered disqualifying for appointment in the National Guard of the United States and the Officers' Reserve Corps, and for Federal recognition as officers of the National Guard.

b. In other respects the standards are the same as for applicants for enlistment.

[A.G. 702 (2-6-40).]

73. Standards for candidates for commission.—a. No candidate with a systolic murmur at the apex which is transmitted to axilla or angle of scapula will be accepted for commission.

b. In other respects the standards are the same as for applicants for enlistment.

[A.G. 702 (2-6-40).]

81. Methods of examination.—The genito-urinary organs will be examined by inspection and palpation. Evidence of venereal disease or malformation will be searched for. The glans-penis and corona will be exposed and the penis stripped. Both sides of the scrotum will be palpated, as will also the inguinal glands. When necessary, further examination by the X-ray, by urethral instrumentation, and by laboratory methods will be conducted. The urine of all applicants for enlistment will be examined for albumin and specific gravity, and if the latter is over 1025 will also be tested for the presence of sugar. Urinalysis, including tests for albumin, specific gravity, and sugar, and a microscopic examination of the sediment, will be made in the case of all candidates for commission, the urine being voided in the presence of one of the examiners, except that in the case of candidates for appointment in

the Officers' Reserve Corps microscopic examination of the urine will be required only when the history, physical examination, or other urinary findings indicate the necessity therefor.

[A.G. 702 (4-1-40).]

85. Serological tests.—A Kahn precipitation test or a Wassermann test will be required of every candidate for commission in the Regular Army. The Wassermann test will ordinarily be used only as a confirmatory test in the presence of a doubtful or positive precipitation reaction. Whenever a doubtful or positive Wassermann reaction is obtained, another specimen will be examined after a lapse of 1 week. Serological tests will not be employed routinely in the examination of applicants for enlistment, but should be used as aids to diagnosis in doubtful cases.

[A.G. 702 (2-6-40).]

86. Standards for applicants for enlistment.—The following conditions are causes for rejection:

* * * * *

c. (As changed by C 1, August 31, 1926.) Floating kidney, hydronephrosis, pyonephrosis, pyelitis, tumors of the kidney, absence of one kidney, or renal calculi.

* * * * *

[A.G. 062.11 (8-25-23).]

87. Standards for candidates for commission.—*a.* No candidate who is found to have a positive Wassermann reaction on two occasions (see par. 85) will be accepted for commission in the Regular Army. In such cases, if no other evidences of syphilis can be found, the cause of rejection will be recorded not as syphilis but as "Positive Wassermann." Serological tests will not be made routinely in the examination of applicants for commission in the National Guard of the United States or the Officers' Reserve Corps, or in the case of those seeking Federal recognition as officers of the National Guard; however, a positive Wassermann on two occasions, if disclosed, will be considered disqualifying for appointment in the National Guard of the United States or in the Officers' Reserve Corps, and for Federal recognition as officers of the National Guard.

b. In other respects the standards are the same as for applicants for enlistment.

[A.G. 702 (2-6-40).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

APPENDIX D

ARMY REGULATIONS }
No. 40-100 }

WAR DEPARTMENT,
WASHINGTON, November 16, 1942.

MEDICAL DEPARTMENT

STANDARDS OF MISCELLANEOUS PHYSICAL EXAMINATION

	Paragraph
Physical examination for admission to the United States Military Academy.....	1
Physical examination of officers and warrant officers of the Regular Army for permanent promotion.....	2
Physical examination, duty involving flying.....	3
Physical examination of officers and warrant officers for retirement.....	4
Physical examination of officers and warrant officers prior to resignation, discharge, or dismissal, and of cadets prior to separation from the United States Military Academy	5
Physical examination of Army nurses and of applicants for the Army Nurse Corps..	6
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Physical examination of enlisted men prior to discharge or retirement.....	8
Physical examination of retired officers and retired warrant officers prior to detail to active duty.....	9
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Physical inspection of military personnel prior to transfer for service outside the United States.....	11
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1. Physical examination for admission to the United States Military Academy.—*a. Standards.*—The standards prescribed in AR 40-105 for candidates for commission in the Regular Army, as modified by the variations prescribed below, will apply to candidates for admission to the United States Military Academy and to applicants for enlistment who expect to enter the United States Military Academy.

*This pamphlet supersedes AR 40-100, September 10, 1940; section II, Circular No. 4, section II, Circular No. 55, section II, Circular No. 72, section I, Circular No. 79, and paragraph 10, Circular No. 221, War Department, 1941; and section I, Circular No. 17, section III, Circular No. 31, and section II, Circular No. 54, War Department, 1942.

(1) *Physical proportions for height, weight, and chest measurement for all candidates except Filipinos.*

Height, inches	Weight, pounds		Minimum chest measure at expiration, inches
	Minimum	Maximum	
66-----	120	170	30. 50
67-----	124	176	30. 50
68-----	128	181	31. 00
69-----	132	185	31. 50
70-----	136	187	32. 00
71-----	140	189	32. 00
72-----	144	192	32. 50
73-----	148	195	32. 50
74-----	152	198	33. 00
75-----	156	201	33. 00
76-----	160	204	33. 50

NOTE.—Fractions greater than $\frac{1}{2}$ inch in height will be considered as an additional inch but candidates must be at least 66 inches in height. Height to be taken without shoes and weight without clothes.

(a) Medical examiners will recommend rejection of individuals who show poor physical development and those who appear to be undesirable candidates because of excessive fat, even though their measurements may come within the limits stated in the above table. In such instances, the report will show in detail the findings upon which recommendation for rejection is based.

(b) Recommendations for waiver of excessive weight will be made in cases in which the general appearance, conformation of the candidate, and the rest of the examination clearly indicate that he is of the robust type and there is no tendency to obesity, endocrine imbalance, cardiovascular disease, or other defect which is likely to shorten the period of useful active service normally expected of an Army officer.

(2) *Teeth.*

(a) The teeth will be thoroughly examined by an officer of the Dental Corps. On the dental chart of W.D., A.G.O. Form No. 0164 (Report of Physical Examination of Candidate for Admission to the United States Military Academy, West Point, N.Y.) all missing natural teeth will be marked out with an "x," whether or not they are replaced by artificial appliances; all prosthetic dental appliances will be entered, and teeth replaced will be indicated.

(b) No candidate will be accepted unless he has a minimum of six serviceable vital masticating teeth (bicusps and molars) above, and six below, serviceably opposing, and also four serviceable vital incisor teeth (incisors and cuspids) above and four below serviceably opposing. (See (c) below.) In cases in which insufficiency of teeth may be remedied by the eruption of third molars, an X-ray of the third molar region will be taken. If a normal third molar properly positioned and developed is shown, it may be assumed that it will have a normal eruption and the candidate may be credited with possession of this tooth. In such cases the report of physical examination will carry an appropriate remark such as "X-ray shows normally developed and erupting -----" (specify tooth or teeth). In doubtful cases a duplicate of the X-ray films will be forwarded with the physical examination report.

- (c) Vital teeth properly filled with permanent fillings or well crowned will be considered serviceable, if otherwise acceptable. A single tooth replacement by a standard method of fixed bridgework will be acceptable in lieu of a serviceable vital tooth when the abutment teeth are otherwise acceptable and the bridge is well constructed.
- (d) A tooth will not be considered serviceable if—
1. It fails to enter into serviceable occlusion with an opposing tooth.
 2. It has an unfilled cavity.
 3. It supports a defective filling or crown.
 4. It is nonvital.
 5. There is destruction of the supporting tissues of the tooth, resulting from gingivitis, periodontoclasia, etc.
- (e) Causes for rejection are—
1. Failure to meet the standard of minimum requirements outlined in (b) above.
 2. Loss of three adjoining masticating teeth in either side of upper or lower jaw.
 3. Disfiguring spaces between anterior teeth.
 4. Marked irregularity of the teeth.
 5. Marked malocclusion.
- (f) Plaster casts will be made of both the upper and lower teeth when conditions listed in (e) 3, 4, and 5 above are causes for rejection. A pencil mark will be drawn across both casts to denote rest occlusion, and the candidate's name will be placed on each cast. X-rays will be made when destruction of the supporting tissues of the teeth or nonvital teeth are causes for rejection. Casts and X-rays will be forwarded direct to The Surgeon General, who will be informed of such action by letter.
- (g) Each candidate otherwise meeting the above dental requirements, whose examination discloses dental caries or other dental defects of a progressive nature, will be given a memorandum specifying in detail the conditions found. A copy of the memorandum of defects furnished the candidate will accompany W.D., A.G.O. Form No. 0164. He will be informed that he cannot be finally accepted until he has had the defects corrected and has reported such fact in writing to The Adjutant General. This report will include a certificate from a reputable dentist that all carious teeth have been restored, without loss of vitality, by the placement of proper permanent fillings. Authority for the candidate to proceed to the United States Military Academy will not be granted until the report has been received.
- (3) *Eyes and vision.*
- (a) Visual acuity as determined by the official test types (without a cycloplegic) must not be less than 20/30 in either eye without glasses, correctible with glasses to 20/20 in each eye, when no organic disease in either eye exists. In all cases the actual vision of each eye, and the correcting lenses if required, will be reported. Careful inquiry will be made by the board for symptoms of asthenopia, and any symptoms elicited will be recorded. When indicated, the board will determine the refractive error by a cycloplegic examination. Errors of refraction, if considered by the board to be excessive, may be a cause for rejection even though the visual acuity falls within acceptable limits. Total hyperopia of more than two diopters or total myopia of more than three-quarters (0.75) diopter in any meridian in either eye is cause for rejection.
- (b) Muscle balance of the eyes will be determined by the Maddox rod screen test at 20 feet. Esophoria of more than 10 prism diopters, exophoria of

more than 5 prism diopters, and hyperphoria of more than 1 prism diopter are causes for rejection.

- (c) Both eyes must be free from any disfiguring or incapacitating abnormality and from acute or chronic disease.
- (4) *Ears and hearing*.—Hearing must be normal (20/20) in each ear for the low conversational voice. Existing perforation of the membrana tympani from any cause whatever is disqualifying. Both ears must be free from any disfiguring or incapacitating abnormality and from acute or chronic disease.
- (5) *Nares*.—Nasal obstruction due to septal deviation, hypertrophic rhinitis, or other causes, if so marked as to interfere materially with breathing, is a cause for rejection.
- (6) *Skin*.—Psoriasis is a cause for rejection.
- (7) *Heart and blood vessels*.—The examination of the heart and blood vessels will be conducted and the findings interpreted in accordance with the provisions of AR 40-105. All questionable findings will be thoroughly investigated over a sufficient period of time to determine their significance. Any evidence of organic heart disease will be considered as cause for rejection. When a candidate is found to have a systolic blood pressure of 140 millimeters or more, or a diastolic blood pressure of 90 millimeters or more, a series of readings will be taken over a period of 3 or more days in order to determine whether the arterial hypertension is constant, and if possible the cause thereof. A persistent systolic blood pressure of 140 millimeters or more, or a persistent diastolic blood pressure of 90 millimeters or more, or an unstable blood pressure, is a cause for rejection.
- (8) *Serological tests*.—A serological test for syphilis will be required for all candidates. The test will be that prescribed by The Surgeon General. A negative report will be accepted as satisfactory evidence of freedom from syphilis in the absence of a history of, previous treatment for, or clinical signs of syphilis. A positive or doubtful report in the absence of a history will be rechecked by such tests as The Surgeon General may prescribe on an additional specimen or specimens. Confirmed positive serological tests will be a cause for rejection.
- (9) *Genito-urinary system*.—If albumin or casts are found in the urine the cause will be determined, if possible. Urine containing albumin or casts will be examined on 3 successive days. Persistent albuminuria or the persistence of casts in the urine is a cause for rejection, even though the cause thereof cannot be determined. The following are also causes for rejection: phimosis, epispadias or pronounced hypospadias, amputation or deformity of the penis, atrophy or maldevelopment of both testicles, or undescended testicle of any degree.
- (10) *Pes planus*.—Suitable exercises will be employed to determine the strength of the arches of the feet. Weak or painful feet are causes for rejection regardless of whether or not the arch is flattened. In reporting the presence of flat feet a careful estimate of the degree of flattening, as first, second, or third degree, will be made and reported, as well as other abnormalities, such as eversion, rotation, callosities, etc.

b. Report of examination.

- (1) The result of the examination in each case, whether the candidate is accepted or rejected, will be fully recorded, in typewriting when practicable, on W.D., A.G.O. Form No. 0164, and will be forwarded direct to the War Department. When it is necessary to send blood to a distant laboratory for the serological test, the board will not forward Form No. 0164 until the report from the laboratory has been received and the results of the tests entered on the form. Delay in completing and forwarding reports of physical examination will be avoided.
- (2) If a candidate does not fulfill all the requirements laid down in these regulations and in AR 40-105 as prescribed for candidates for commission in the Regu-

lar Army, he will be reported by the medical examiners as physically disqualified. Medical officers are not authorized to waive defects or to vary from the established standards, but may recommend that defects or variances be waived by the War Department.

- (3) The result of the physical examination, except in a preliminary examination as described in *c* below, will be regarded as confidential and will not be disclosed to the candidate or other interested parties.

c. Preliminary examination.

- (1) The presentation by a candidate of his letter of conditional appointment, or by a prospective candidate of a letter signed by a Member of Congress stating that the bearer is to be a candidate for cadet appointment, and a request by the candidate that he be physically examined will be sufficient authority for an Army medical officer at any military station to make the desired physical examination.
- (2) Upon completion of this examination the medical officer will inform the candidate of the result, and in case a disability is found will inform him whether such disability is believed to be permanent and disqualifying for military service, or whether it is believed to be of a temporary or remediable nature.
- (3) This examination is to be regarded as preliminary and advisory only, and in no manner is to affect the decision of the regular medical examining board.
- (4) No report of a preliminary examination need be made.

d. Examination subsequent to original admission.—The physical standards applying to cadets at the United States Military Academy and to candidates for readmission after discharge therefrom will be those prescribed in AR 40-105 for candidates for commission in the Regular Army, except that vision less than 20/20 will be correctible to 20/20 in each eye by proper glasses, and the standards of height, weight, and chest measurement will be those prescribed in *a* (1) above.

2. Physical examination of officers and warrant officers of the Regular Army for permanent promotion.—*a. Standard.*—In the absence of specific instructions to the contrary, the physical requirements will be those prescribed in AR 40-105 for candidates for appointment, except the serological test for syphilis, but the provisions thereof will not be so strictly interpreted as in the case of applicants for original appointment.

b. Form to be used for report.—The report will be rendered on W.D., A.G.O. Form No. 63 (Report of Physical Examination).

3. Physical examination, duty involving flying.—See AR 40-110.

4. Physical examination of officers and warrant officers for retirement.—*a. General.*—All officers and warrant officers will be physically examined prior to retirement. A declaration regarding the existence of any physical incapacity will be obtained in all cases not appearing before Army retiring boards. See also AR 605-250.

b. Form to be used for report.—The report will be rendered on W.D., A.G.O. Form No. 63.

5. Physical examination of officers and warrant officers prior to resignation, discharge, or dismissal, and of cadets prior to separation from the United States Military Academy.—Same as prescribed for enlisted men prior to discharge or retirement (par. 8), except that W.D., A.G.O. Form No. 63 will be used instead of W.D., A.G.O. Form No. 38 (Report of Physical Examination of Enlisted Men Prior to Discharge or Retirement).

6. Physical examination of Army nurses and of applicants for the Army Nurse Corps.—*a. For admission to Army Nurse Corps.*

- (1) *Where and by whom made.*—The applicant's physical fitness for appointment will be determined by a board of not less than two medical officers. She will be questioned carefully about her medical history and her present health. The examination will be thorough in order that only those will be recommended for acceptance who are physically able to perform the duties required of an Army nurse.

PHYSICAL STANDARDS

The medical examiners will take full advantage of all available diagnostic aids to detect any physical impairment, including in all cases an X-ray examination of the chest.

- (2) *Standard*.—In general, due consideration being given to difference in sex, the standards prescribed for commission in AR 40-105 will apply, except as regards those pertaining to height, weight, and chest measurement. The following table gives the average weight for age and height for applicants for and members of the Army Nurse Corps:

Height, inches	Weight according to age period						
	21-25	26-30	31-34	35-40	41-45	46-50	51 and over
60-----	114	117	120	123	126	128	130
61-----	117	120	123	126	129	131	133
62-----	120	123	126	129	132	134	136
63-----	123	126	129	132	135	137	139
64-----	127	130	133	136	139	141	143
65-----	131	134	137	140	143	145	147
66-----	135	138	141	144	147	149	151
67-----	139	142	145	148	151	153	155
68-----	143	146	149	152	155	157	159
69-----	147	150	153	156	159	161	163
70-----	151	154	157	160	163	165	167
71-----	155	158	161	164	167	169	171
72-----	159	162	165	168	171	173	175

NOTE.—Height and weight to be taken without shoes and with surgical gown or sheet in lieu of dress.

- (a) The permissible variation below the standard for age is 15 pounds, with the exception that no applicant will be accepted whose weight is less than 105 pounds.

- (b) The weight for each height for the age group 26 to 30 is the ideal one to maintain thereafter. In applying the percentage variation, fractions of less than $\frac{1}{2}$ pound will be dropped; those of $\frac{1}{2}$ pound or more will be counted as an additional pound.

b. Prior to discharge.—Upon receipt of orders directing her discharge or relief from active service, and prior to her departure from her proper station, an Army nurse will be given a thorough physical examination.

c. Reports; form used; to whom rendered.—Reports of the examination required by *a* and *b* above will be rendered on W.D., A.G.O. Form No. 63 direct to The Surgeon General.

7. Physical examination of deserters.—*a. Physical examination of a deserter upon return to military control* will be made to determine physical fitness as prescribed in MR 1-9.

b. Report to be furnished commanding officer.—The medical officer making the examination will furnish the commanding officer a report thereof on page 2 of W.D., A.G.O. Form No. 22 (Enlistment Record, Regular Army), modified as necessary, including therein the nature and cause of any mental or physical disability found.

8. Physical examination of enlisted men prior to discharge or retirement.—*a. When made*.—Every enlisted man not discharged for physical disability (AR 615-360 or 615-395)

will execute on W.D., A.G.O. Form No. 38 a declaration of his physical condition, after which he will be required to undergo a thorough physical examination by a medical officer within a period of 72 hours prior to his discharge or retirement from active Federal service. When a medical officer is not available the examination will be omitted, unless the enlisted man, in his own opinion or in the opinion of his commanding officer, has a physical disability, in which event a civilian physician will be employed to make the examination.

b. Requirements.—The nature and location of any defect, wound, injury, or disease found to exist will be stated in the report, together with the opinion of the medical officer as to whether or not the wound, injury, or disease—

(1) Is likely to result in death or disability.

(2) Originated in the line of duty in the military service of the United States.

c. Form to be used for report.—The report will be rendered on W.D., A.G.O. Form No. 38.

d. Board of review.

(1) *When required.*—If the declaration required by *a* above is at variance with the findings of the medical examiner, the enlisted man will be examined by a board of review, convened by the commanding officer, whenever the required number of medical officers is available at the station. The board will consist of not less than two nor more than three medical officers, one of whom may be the medical officer making the examination required by *a* above. The board of review will be dispensed with only when the required number of medical officers is not available.

(2) *Requirements.*—Same as *b* above.

(3) *Form to be used for report.*—Same as *c* above.

e. When discharged on account of sentence to confinement by civil court.—In such cases the execution of the declaration of physical condition on W.D., A.G.O. Form No. 38 will be dispensed with, and no physical examination is required even though disability is claimed or believed to exist.

9. Physical examination of retired officers and retired warrant officers prior to detail to active duty.—*a.* Prior to the detail of a retired officer or retired warrant officer to active duty he will be required to undergo a thorough physical examination by a medical officer.

b. Waivers may be recommended for defects which, although disqualifying for original appointment or reappointment to the active list, will not, in the opinion of the medical examiner interfere with the proper performance of the duties required by the detail. No retired officer or retired warrant officer will be assigned to active duty unless the medical examiner will certify that in his opinion he has no disability (including dental conditions) which is likely to incapacitate him for the duties which will be required of him while on active duty, or which will necessitate medical or dental treatment in the near future.

c. Form to be used for report.—Report of the physical examination will be rendered on W.D., A.G.O. Form No. 63.

10. Physical examination of enlisted men selected for detail to attend a service school.—

a. Standard.

(1) The standard of physical examination for enlisted men selected for detail to attend service schools, other than officer candidate schools, West Point preparatory schools, and other schools for which special physical standards are or may be prescribed, will be freedom from any abnormal physical condition which is likely to interfere temporarily or permanently with his pursuit of a course at the school. (See also AR 350-110.)

(2) Applicants for West Point preparatory schools must meet the physical requirements for admission to the United States Military Academy.

(3) Applicants for officer candidate schools for general military service must meet the same standard of physical fitness as that required for commission in

the Army of the United States (AR 40-105) except as indicated in (a) and (b) below:

- (a) Standards of height, weight, and teeth will be the same as those prescribed in MR 1-9 for induction for general service.
- (b) Applicants whose visual acuity is not less than 20/200 in each eye without glasses and is correctible to 20/20 in one eye and 20/40 in the other eye and who are otherwise physically qualified will be eligible for commission in the Army of the United States for duty with the Medical Administrative Corps, Quartermaster Corps, Finance Department, Ordnance Department, Chemical Warfare Service, The Adjutant General's Department, and Army Air Forces administrative installations.
- (4) Individuals who do not meet the physical standards set forth in (3) above, but who meet the standards for induction set forth in MR 1-9, including class 1-B standards, will be considered physically qualified for officer candidate schools for appointment for limited service.

b. Report.—The physical examination will be recorded on W.D., A.G.O. Form No. 63, in duplicate. If the final type physical examination reveals minor disqualifying defects, the applicant may request a waiver of the defects by letter to the commanding general of the service command or department under whose jurisdiction he is serving or to the Commanding General of the Army Air Forces or such officer or officers of the Army Air Forces as he may designate. Where local conditions prevent a complete final type physical examination being accomplished, the applicant if accepted may be sent to the school and have the examination completed there, provided such physical examination as is possible locally does not reveal a disqualifying defect.

11. Physical inspection of military personnel prior to transfer for service outside the United States.—Prior to transfer for service outside the United States, all military personnel will be given a careful physical inspection at their home stations, and again at the port of embarkation if more than 48 hours have elapsed since the inspection at the home station or if the presence of communicable disease in a command warrants additional investigation at the port of embarkation. With the exception of female personnel, they will be inspected with all clothing removed. Those whose inspection warrants additional physical study will be given such examinations as may be indicated. See also AR 615-250.

12. National Guard and National Guard of the United States.—The physical standards for Federal recognition and for retention of Federal recognition of officers in the National Guard, for appointment, reappointment, promotion, and retention of officers in the National Guard of the United States will be the same as those prescribed for appointment, reappointment, promotion, and retention of Reserve officers in the Active Reserve. For other regulations governing the physical examination of members of the federally recognized National Guard and the National Guard of the United States, see AR 40-105 and 130-15.

13. Reserve Officers' Training Corps.—For regulations governing the physical examination of applicants for, and members of, the Reserve Officers' Training Corps, see AR 145-10.

14. Standards of physical examination during mobilization.—Standards of physical examination prescribed for mobilization are covered in MR 1-9.

15. Limited service; officers, Army nurses, and warrant officers of Reserve components for extended active duty, and original appointment of other than graduates of officer candidate schools.

a. In periods of national emergency and of long-continued war effort it may become necessary to accept for limited service officers, Army nurses, and warrant officers of the Reserve components for extended active duty and applicants for appointment in the Army of the United States who do not fully meet the physical standards for general military service. For such limited service as officers, Army nurses, or warrant officers, waiver may be recommended for defects which are mild in degree and nonprogressive in character.

b. As an aid to uniformity in the recommending of waivers for limited service as officers, Army nurses, or warrant officers, the following conditions are listed as being acceptable for limited service:

- (1) Overweight in excess of that prescribed in AR 40-105, provided the individual is not markedly obese, and provided that because of his special training in civil life he is peculiarly fitted to fill a particular technical assignment in the Army; and underweight to 15 percent below ideal weight, provided chest X-ray is negative for pulmonary pathology and other chronic disease is carefully excluded.
- (2) Any degree of uncorrected vision provided it is corrected with glasses in possession of the examinee to 20/20 in one eye and to 20/40 in the other, provided that no organic disease of either eye exists, and asthenopia is not present.
- (3) Blindness or corrected vision below 20/40 in one eye with minimum vision of 20/200 corrected with glasses in possession of the examinee to 20/20 in the other, provided that there is no organic disease in the better eye and no history of cataract or other disease in the more defective eye which might be expected to involve the better one, and provided that in case of ophthalmostenosis the individual is fitted with a satisfactory prosthesis.
- (4) Complete color blindness.
- (5) Hearing 5/20 in each ear for low conversational voice, or complete deafness in one ear with hearing 10/20 or better in the other, provided the defect is not due to active inflammatory disease and is stationary in character.
- (6) Chronic otitis media, inactive with perforation of membrana tympani, provided there is a trustworthy history of freedom from activity for the preceding 2 years.
- (7) Old fracture of the spine or pelvic bones which has healed without marked deformity, provided there is a trustworthy history of freedom from symptoms during the preceding year.
- (8) Loss of one hand, one forearm, or one lower extremity below the junction of the middle and lower thirds of the thigh provided that the lost member is replaced with a satisfactory prosthesis.
- (9) Pes planus, pes cavus, or talipes equinus, provided the condition is not more than mildly symptomatic, does not interfere with normal locomotion, and has not interfered with the individual's vocation in civil life.
- (10) History of osteomyelitis following fracture, provided X-ray indicates complete healing and the condition has been asymptomatic for the preceding 2 years.
- (11) Joints fixed or limited in motion, provided the condition is the result of injury and is nonsymptomatic.
- (12) History of excision of torn or detached semilunar cartilage of knee joint, provided there is normal stability of the joint and a period of 1 year with complete freedom from symptoms has elapsed since the operation.
- (13) Hypertrophic arthritis not more than mild in degree and asymptomatic.
- (14) Residuals of anterior poliomyelitis, without marked deformity or loss of function, originating 1 year or more prior to examination.
- (15) Varicose veins, moderate, without edema or discoloration of skin.
- (16) History of gastric or duodenal ulcer, provided there is a trustworthy history of freedom from activity during the preceding 5 years and provided that gastrointestinal X-ray at the time of examination is negative.
- (17) History of intestinal anastomosis or operation for intestinal obstruction, provided the operation was not necessitated by the presence of regional ileitis or malignant disease, there is a trustworthy history of freedom from symptoms for the preceding 3 years, and current X-ray studies indicate normal function.
- (18) Incomplete inguinal hernia, unilateral or bilateral.
- (19) Small asymptomatic congenital umbilical hernia.

- (20) Absence of one kidney, provided its removal has been necessitated as a result of trauma and provided the other kidney is normal.
- (21) Arterial hypertension not in excess of 160 systolic or 95 diastolic, provided the cardiovascular and renal systems are otherwise negative.
- c. The following conditions are not considered acceptable for limited service :
 - (1) History of malignant disease within preceding 5 years.
 - (2) Active tuberculosis of any organ and inactive pulmonary tuberculosis except as described as acceptable for general service in MR 1-9.
 - (3) Asthma of any degree. History of asthma other than in childhood, with trustworthy history of freedom from manifestations during the preceding 10 years.
 - (4) Syphilis.
 - (5) Old fracture of the skull with bony defect greater than 3 centimeters in longest diameter or with history of residual mental or neurologic complications.
 - (6) Instability of any of the major joints.
 - (7) Active osteomyelitis of any bone, or a substantiated history of osteomyelitis of any of the long bones within the past 5 years.
 - (8) Arthritis of the atrophic (rheumatoid) type, hypertrophic arthritis which is either symptomatic or more than mild in degree, or history of recent or recurrent attacks of rheumatic fever.
 - (9) Spondylolisthesis; herniated nucleus pulposus or history of operation for same.
 - (10) Any cardiovascular condition which disqualifies for general military service, other than mild hypertension as described in b(21) above.
 - (11) History of gastroenterostomy or gastric resection.
 - (12) History of prostatectomy or transurethral resection of prostate, or of prostatic hypertrophy of any degree.
 - (13) The presence of renal calculus, or a substantiated history of bilateral renal calculi at any time.
 - (14) Chronic endocrine disease except mild hypothyroidism or mild Froehlich's syndrome.
 - (15) Diabetes mellitus of any degree or renal glycosuria.
 - (16) History of any psychosis.
 - (17) History of severe psychoneurosis at any time, or psychoneurosis of any degree if it has been recurrent or has shown symptoms within the preceding 5 years.
- d. Determination as to acceptability for limited service of individuals with borderline conditions not listed above will be made in conformity with the policies set forth in relation to those enumerated.

[A.G. 702 (8-29-42).]

BY ORDER OF THE SECRETARY OF WAR :

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*Major General,
The Adjutant General.*

DISTRIBUTION :

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G. C. MARSHALL,
Chief of Staff.

APPENDIX E

ARMY REGULATIONS }
No. 40-100 }

WAR DEPARTMENT
WASHINGTON, December 3, 1942.

MEDICAL DEPARTMENT

STANDARDS OF PHYSICAL EXAMINATION FOR FLYING

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SECTION I

GENERAL PROVISIONS

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1. Purpose.—*a.* These regulations set forth standards to determine an individual's fitness for flying duty. For appointment, personnel of the Army Air Forces will be subject to the same physical standards and examinations that are given to personnel of other arms and services, as provided in AR 40-100 and 40-105.

b. The purpose of these regulations is to conserve life and materiel by—

- (1) Selecting for the various flying duties only those individuals who are physically and mentally fit for such duties;
- (2) Maintaining a standard of physical fitness required for duties in the air; and
- (3) Reclassifying into lower brackets, grounding, or removing promptly from flight status those who, because of physical or mental defects, become temporarily or permanently unfitted for such duties.

2. Definitions.—For the purpose of these regulations, the following terms will be employed only within the meanings given:

a. Flying.—Moving in the air in an aircraft.

b. Flying status.—A status in which an individual has been ordered legally and by proper authority to participate regularly and frequently in aerial flights.

c. Grounding.—The prohibition of an individual from flying, usually for reasons of a temporary or minor nature.

d. Relief from flying status.—Issuance of a legal order by proper authority terminating the participation of an individual in regular and frequent flights. This may be of a permanent or temporary nature.

*This pamphlet supersedes AR 40-110, April 1, 1940; section II, Circular No. 119, War Department, 1940; section II, Circular No. 36, paragraph 2, Circular No. 65, paragraph 12, Circular No. 221, War Department, 1941; and section III, Circular No. 6, War Department, 1942.

c. Serious illness or injury.—In relation to flying, any major illness, however short, and any illness or injury that requires major surgical procedure or absence from full military duty for a period of 1 month or more; fractures, and especially fractures involving the cranium or vertebral column; injuries or interference with function, or diseases of the eye; neurological, mental, or neuropsychiatric conditions; cardiovascular and renal conditions of an organic nature; encephalitis lethargica or any condition accompanied by diplopia or lethargy; syphilis; malaria; paroxysmal tachycardia; recurrent attacks of any of the rheumatic group; renal calculus; pneumonia, typhoid, and any other debilitating disease.

3. Examinations, general.—*a.* The physical examination prescribed herein will be given—

- (1) Applicants for flying training and individuals undergoing flying training.
- (2) Officers of the Regular Army, Reserve Corps, Army of the United States, or warrant officers applying for transfer to or detail in the Army Air Forces as flying officers.
- (3) Rated command pilots, senior pilots, pilots, service pilots, aircraft observers, technical observers, balloon pilots, senior balloon pilots, balloon observers, navigators, bombardiers, glider pilots, liaison pilots, and flight officers.
- (4) Other officers, Army nurses, and warrant officers of the Army Air Forces authorized by competent authority to perform duties in military aircraft.
- (5) Officers of other arms and services of the Army detailed by competent authority to duty involving flying.
- (6) Enlisted personnel assigned to flying duty.
- (7) Air Corps Reserve officers holding an aeronautical rating, ordered to active duty.

b. Applicants for appointment as a commissioned officer of the Air Corps must meet the basic physical requirements as provided in AR 40-100 and 40-105. The physical examination will be of the final type and signed by at least three medical officers. This report of physical examination is normally recorded on W.D., A.G.O. Form No. 63 (Report of Physical Examination); however, W.D., A.G.O. Form No. 64 (Physical Examination for Flying) will be used whenever the applicant is also being considered for an aeronautical rating.

c. Applicants for air crew training must meet the basic physical requirements for commission as provided in AR 40-100 and 40-105, with the added requirements of class 1 visual acuity and normal color vision as prescribed in paragraph 11a(3). This examination need not be a final type examination. However, when facilities are available, X-ray of the chest and an approved serological test for syphilis will be done on all applicants. Whenever the necessary equipment and services of a flight surgeon or aviation medical examiner are available, a report of physical examination for applicants for air crew training will be accomplished on W.D., A.G.O. Form No. 64. Qualified applicants will meet class 1 standards. This physical examination record (Form No. 64) will be signed by at least one aviation medical examiner or flight surgeon.

d. The basic physical requirements are the same for all individuals who perform duty in the air in any capacity. Because of the relationship between vision and hearing and the performance of flying duties, individuals who are to perform the various technical duties in the air in accordance with their professional qualifications are further classified into three classes according to the findings of the examination of their eyes and ears. For duty involving regular and frequent participation in aerial flights, the following personnel are required to meet the physical standards of these classes:

- (1) Class 1.—Applicants for flying training, individuals undergoing flying training, rated senior pilots, pilots, flight officers, aircraft observers, balloon pilots, senior balloon pilots, balloon observers, service pilots, navigators, bombardiers, glider pilots, and liaison pilots.

- (2) Class 2.—Rated senior pilots, pilots, flight officers, aircraft observers, balloon pilots, senior balloon pilots, balloon observers, service pilots, liaison pilots, glider pilots, individuals undergoing training as navigators and rated navigators.
- (3) Class 3.—Rated command pilots, technical observers, aircraft observers, non-rated observers, Army nurses, and officers of other arms and services detailed by competent authority to duty involving flying. Service pilots who cannot meet the physical standards of class 1 or 2, but whose defects are within the limits prescribed for class 3, provided their training and experience, in the opinion of the Commanding General, Army Air Forces, are such as to compensate for the lower physical standards of class 3, may be qualified in this class.

4. Restrictions until physically qualified.—*a.* Individuals will not be assigned to duty involving regular and frequent participation in aerial flights until they have successfully passed the physical examination prescribed herein for their respective class, and until they have received official notification from the Commanding General, Army Air Forces, or such officer or officers of the Army Air Forces as he may designate to pass on the physical requirements for such duty.

b. Those who fail to pass the physical examination prescribed in these regulations for specific duty in the air will be relieved from such duty and will not be placed thereon until they are able to pass such physical examination, or have received waivers for their physical defects.

5. Reexamination; physical incapacity.—*a.* Whenever a flight surgeon finds an individual on flight status physically incapacitated for such duty he will promptly inform the commanding officer of his station in writing, submitting appropriate recommendations at the same time. Upon the receipt of such notification from the flight surgeon, the commanding officer will at once ground or suspend the flight status of any individual reported physically incapacitated. When the individual, following physical examination, is again reported by the flight surgeon as physically fit, the commanding officer may, if the flight surgeon so recommends and the incapacity was for a slight or temporary disability, authorize resumption of such duty or training without reference to the Commanding General, Army Air Forces.

b. Reexamination and report on W.D., A.G.O. Form No. 64 will be made on any rated officer or rated enlisted man after hospitalization or serious illness, or injury in relation to flying; after grounding or relief from flight status, for cause other than minor illness or injury; after return from sick leave; and after head injury with actual or suspected intracranial damage. Such individuals will not be allowed to resume any duty in the air until the flight surgeon reports them physically qualified and action has been taken by the Commanding General, Army Air Forces, or such officer or officers of the Army Air Forces as he may designate.

c. Aviation cadets, officers training in grade, and enlisted men training in grade who have been relieved from flight duty for serious illness or injury that requires major surgical procedure or absence from full military duty for a period of over 1 month will not be allowed to resume any duty in the air until authorized by the commanding general of the Army Air Forces training center having immediate supervision of their training. Such cases will not be referred to the Commanding General, Army Air Forces, or to the Air Surgeon, Headquarters Army Air Forces.

d. Following an aircraft accident, and particularly after any head injury, careful examination will be made to determine the presence or absence of intracranial damage. Apparently trivial head injuries are often attended or followed by serious consequences, and a period of observation may be necessary before the possibility of permanent intracranial damage can be excluded. Such individuals, even though not necessarily hospitalized or placed on sick report, will be given a careful examination so that a decision as to their physical fitness for duty in the air may be reached. A report of such examination will be rendered on W.D., A.G.O. Form No. 64.

6. Examination, where made.—With few exceptions, all stations of the Army Air Forces have the personnel and equipment necessary for the performance of the examination for flying. Certain other stations have similar facilities. Information concerning the location of these stations may be obtained from the Commanding General, Army Air Forces, the headquarters of service commands, and service command recruiting stations.

7. Examination, by whom made.—Because of their highly technical character and importance, these examinations will be made only by flight surgeons and aviation medical examiners who are authorized by the Commanding General, Army Air Forces, to conduct such examinations.

8. Waivers.—*a.* Personnel who do not meet the basic physical requirements for flying duty, as established by these regulations, will require a waiver granted by the Commanding General, Army Air Forces, or other authorized authority before being allowed to perform such flying duty. In such cases, formal request for waiver by the individual concerned is not required unless called for by proper authority. It is apparent that extensive flying experience usually compensates for the normal physical deterioration commensurate with age.

b. The commanding general of an Army Air Forces training center who has immediate supervision of the individual's training may, upon recommendation of the staff surgeon, grant waivers for minor physical defects. These waivers are to apply to duty involving flying provided the defect is not considered dangerous to the individual or hazardous to materiel.

c. Waiver for physical defects of enlisted personnel of combat crews undergoing training or previously trained may, upon recommendation of the senior flight surgeon, be granted by the station commander or commanding officer of the unit concerned.

SECTION II

RECORDS

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9. Record required, action, disposition.—*a.* A record of the physical examination for flying prescribed in these regulations will be made in each case on W.D., A.G.O. Form No. 64 in triplicate.

b. In the case of rated personnel and personnel undergoing flying training, three copies of this form will be forwarded through medical channels to the authorized medical reviewing authority for action and disposition of forms.

c. The original report of physical examination (W.D., A.G.O. Form No. 63 or 64) of qualified applicants for air crew training will be forwarded with allied papers to the commanding general of the service command. One copy of this report on all applicants, both qualified and disqualified, will be forwarded to the Air Surgeon, Headquarters Army Air Forces, Washington, D.C. The remaining copy will be retained by the medical examiner for record.

d. Whenever rated personnel become ill at any station other than their home station, the senior flight surgeon will have prepared a clinical abstract in brief at termination of treatment which will be forwarded to the senior flight surgeon of the individual's permanent station.

e. Outside the continental limits of the United States, two copies of the form prescribed in *a* above will be forwarded direct to the senior flight surgeon who has been delegated authority by the Commanding General, Army Air Forces, to certify as to the physical qualifications for flying on all flying personnel within his department or theater of operations. One copy of physical examination indicating the action taken will be forwarded to

the station or unit concerned, and the remaining copy will be forwarded to the air surgeon for final confirmation and file.

10. Transfer of record.—*a.* When an individual is transferred to another station, the complete flight surgeon's record, together with other pertinent data, will be forwarded to the flight surgeon of the new station. An individual, prior to departing for a new station, will be required to present a copy of his orders to the flight surgeon so that the exact mailing address of his new station will be known. These orders will be appended to the above file prior to mailing to the individual's new station.

b. When the individual is transferred outside the continental limits of the United States, the complete flight surgeon's record and other pertinent data will be forwarded direct to the Air Surgeon, Headquarters Army Air Forces.

SECTION III

EXAMINATION

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11. Visual efficiency.—*a. Central vision.*

(1) *Acuity at 20 feet.*

(*a*) *Scope.*—A central visual acuity at 20 feet will be determined on all examinations. Each eye will be tested separately. Visual acuity of each eye will be recorded as 20/15, 20/20, 20/30, etc. Any additional letters read will also be recorded in the following manner: 20/20+2, 20/30+4, etc.

(*b*) *Interpretation of findings.*—For class 1, the minimal requirement for visual acuity for each eye is 20/20 without correction. If two or three letters are not read correctly on the 20/20 line, but an equal number are read correctly on the 20/15 line, the acuity will be recorded as 20/20. For class 2, the minimal requirement without correction for each eye is 20/40, provided it is correctible for each eye to 20/20, and that such correction is worn when flying. For class 3, the minimal requirement without correction for each eye is 20/100, provided it is correctible to 20/20 and that such correction is worn when flying.

(2) *Acuity at 13 inches.*—Central visual acuity at 13 inches (near vision) will be determined on all examinations. Each eye will be tested separately. The near visual acuity of each eye will be recorded as "J-1-13," "J-2-13," etc.

(3) *Central color perception.*—Applicants for appointment as commissioned officers in the Army of the United States will be required to meet the basic requirements of AR 40-105. Efficiency of binocular central color perception will be determined on all original applicants for flying training, with either the American Optical Company's compilation of pseudoisochromatic plates or Ishihara color test plates. Applicants for flying training, who correctly interpret all the plates of the test books mentioned above will be recorded as having "normal" central color vision. Those who correctly interpret less than 75 percent of the plates in the test books

will be recorded as, "fails Ishihara" or "fails A.O." and are disqualified for any type of flying training. Applicants for flying training who incorrectly interpret 1 to 25 percent of the plates in the color vision books will be recorded as, "misses 3 A.O." or "misses 3 Ish.," referring to the number of plates missed and the book used.

Aviation cadets undergoing classification and personnel, commissioned or enlisted, undergoing flying training in grade who are found to have defective binocular central color perception, as indicated by having incorrectly interpreted more than 25 percent of the plates in the color vision test book, will be subjected to further color vision tests as directed by the Commanding General, Army Air Forces, to determine whether they are considered to be "safe" or "unsafe" will be eliminated from further flying training.

b. Peripheral vision for form (visual fields).

(1) *Scope.*—Peripheral vision for form will be determined on all examinations.

The confrontation test will be employed, using a 1 centimeter white sphere, but if a visual field defect is found, a complete examination will be accomplished with the perimeter and the findings recorded on the prescribed forms. These forms will be attached to and forwarded with the report of physical examination.

(2) *Interpretation of findings.*—The normal field for form extends temporally 90° or more; superiorly 50°; nasally 55°; inferiorly 65°. Any contraction of the visual field for form of 15° or more in any meridian disqualifies for flying unless the contraction is the result of the anatomic conformation of the examinee's face. Other pathological changes of the visual field disqualify for flying (scotomata, nasal contraction, etc.). If scotomata are suspected, they will be mapped on a tangent screen. Scotomata other than the normal blind spot are disqualifying. This standard applies to all three classes.

12. Accommodative power.—*a. Scope.*—The power of accommodation will be determined on all examinations when the examinee is below 45 years of age. Each eye will be tested separately. The power of accommodation will be recorded in diopters. The following table gives the mean values of accommodation in diopters from 18 to 45 years of age:

Table of mean value of accommodation power (Duane)

Age	Diopters	Age	Diopters	Age	Diopters
18.....	11.9	26.....	9.9	34.....	7.7
19.....	11.7	27.....	9.6	35.....	7.3
20.....	11.5	28.....	9.4	36.....	7.1
21.....	11.2	29.....	9.2	37.....	6.8
22.....	10.9	30.....	8.9	38.....	6.5
23.....	10.6	31.....	8.6	39.....	6.2
24.....	10.4	32.....	8.3	40.....	5.9
25.....	10.2	33.....	8.0	45.....	3.7

b. Interpretation of findings.—Accommodation may be considered as within normal limits provided it is not more than 3 diopters below the mean for the examinee's age, in either eye. For class 1 the examinee will be disqualified if his accommodation falls more than 3 diopters below the mean for his age, but before an examinee is disqualified his accommodation must be taken on 3 successive days and an average of the three findings determined. For classes 2 and 3, examinees are qualified with accommodation below 2 diopters regardless of age, provided they actually wear their correction for near vision while flying

and their correction while worn enables them to read Jaeger test letters No. 1 at 20 inches (50 cm.).

13. Depth perception at 20 feet.—*a. Scope.*—Depth perception efficiency at 20 feet will be determined on all examinations. Five trials will be given and the average of these trials will be recorded in millimeters.

b. Interpretation of findings.—For class 1, an average error of more than 30 millimeters disqualifies. For class 2, an average error of more than 35 millimeters with correction worn disqualifies. For class 3, the depth perception test is omitted. An average error beyond the qualifying limits may be waived in the case of aviation cadets applying for or undergoing training as navigators, and rated navigators.

14. Ocular muscle efficiency.—Horizontal muscle balance (esophoria, exophoria); vertical muscle balance (right hyperphoria, left hyperphoria); fusion power (power of convergence (near point), power of divergence (prism divergence), field binocular rotation (red lens test)).

a. Equipment.—A phorometer trial frame equipped with Maddox rod and rotary prism or other prisms; a spotlight 1 centimeter in diameter. Horizontal and vertical muscle balance and power of divergence will be determined at 20 feet. Ocular muscle efficiency will be determined on all examinations.

b. Interpretation of findings.

(1) *Horizontal muscle balance at 20 feet.*—For classes 1 and 2, esophoria of more than 10 prism diopters or exophoria of more than 5 prism diopters disqualifies. For class 3, esophoria of more than 12 prism diopters or exophoria of more than 7 prism diopters disqualifies. Heterotropia (manifest muscle imbalance) of any variety disqualifies for all three classes.

(2) *Vertical muscle balance at 20 feet.*—For classes 1 and 2, a hyperphoria of more than 1 prism diopter disqualifies. For class 3, hyperphoria of more than 2 prism diopters disqualifies. Muscle imbalance beyond the qualifying limits of classes 1, 2, and 3 may be waived in the case of aviation cadets applying for or undergoing training as navigators, and rated navigators, provided binocular single vision is maintained in the primary position and in all cardinal directions of vision.

(3) *Fusion power.*

(a) *Power of convergence.*—For classes 1 and 2, the distance from the base line to the near point of convergence (Pc B) must not exceed the interpupillary distance by more than 25 millimeters. Test is omitted in class 3.

(b) *Power of divergence (prism divergence).*

1. This test is accomplished with the spotlight at 20 feet and with prisms placed immediately in front of the eye.

2. For classes 1 and 2, power of divergence of more than 15 or less than 3 prism diopters disqualifies. When an esophoria exists, prism divergence in diopters must be equal to or greater than the diopters of esophoria.

(c) *Field of binocular rotation (red lens test).*

1. Primary position is a point 75 centimeters directly in front and on level with both eyes.

2. Where diplopia occurs within 27.30 centimeters of the primary position, the test will be completed by recording on a tangent screen or blackboard the exact points at which diplopia occurred. The distance from the primary point where diplopia first occurs will be measured in centimeters.

3. For classes 1 and 2, diplopia within 50 centimeters in any meridian disqualifies. For class 3, the test is omitted routinely. In command and service pilots where diplopia is suspected and if diplopia within 27.30 centimeters in any meridian is found the examinee is disqualified.

15. Inspection of eyes.—*a. Scope.*—In process of examination of the eyes, the following conditions will be noted:

- (1) *Globes.*—Changes from the normal position of the globes, as changes in the direction of the visual axes (squint), exophthalmos or enophthalmos.
- (2) *Lids.*—Ptosis, blepharitis, trichiasis, entropion, ectropion, symblepharon, chalazion, or hordeolum.
- (3) *Lacrimal apparatus.*—Dacryocystitis, acute or chronic, dacryoadenitis, or imperfect drainage or epiphora from any cause.
- (4) *Conjunctiva and sclera.*—The lids are to be everted and the palpebral conjunctiva and fornices exposed. The following conditions are to be noted: congestion, conjunctivitis, acute or chronic, evidence of trachoma, contractures, cicatrices circumcorneal injection, evidences of episcleritis or scleritis, and chalk-like meibomian concretions.
- (5) *Cornea.*—Keratitis, opacities, vascularization, pterygium, deposits on posterior surface, irregularity of corneal surface due to trauma, or retained foreign bodies.
- (6) *Pupils.*—Note size, shape, inequality, direct and consensual reactions to light, and reaction to accommodation.
- (7) *Iris.*—Synechiae, anterior and posterior, evidence of past or present iritis, congenital anomalies, any sequelae of trauma or minute pigmented neoplasms.
- (8) *Anterior chamber.*—Abnormality in depth or any evidence of alteration in normal character of aqueous humor, retained foreign bodies.
- (9) *Lens.*—Opacities or anomalies.
- (10) *Vitreous.*—Opacities or anomalies.
- (11) *Intraocular tension.*—Taken by palpation and recorded as normal increased, or decreased. When there is a question of increased intraocular pressure the tonometer will be employed and the results recorded with the type of tonometer employed.

b. Interpretation of findings.—Distinction will be made between defects considered as being of a temporary or of a permanent nature, and notation made as to interference with function. Any evidence of acute inflammation of the eye or adnexa is temporarily disqualifying. A chalazion which is nonirritating and does not interfere with the normal function of the lid is not disqualifying but will be recorded. A hordeolum will be considered as a temporarily disqualifying condition and consideration given to refractive error as its possible cause. Well-healed corneal opacities which in no way interfere with vision are not disqualifying, but will be recorded as to position, size, and density. An inactive pterygium encroaching on the cornea more than 1 millimeter is disqualifying. One that is definitely progressive, as evidenced by marked vascularity and thick elevated head disqualifies. Any evident increase or decrease in intraocular pressure disqualifies. Nystagmus in primary position disqualifies, but nystagmoid movements which are noted only at extreme limits of the normal ocular movements are of no significance and must be differentiated from a true nystagmus. If anisocoria exists, further attention will be given to the tests of visual fields for form, pupillary reaction to light, blood serology, and history of syphilis. Abnormal pupillary reaction to light is disqualifying if caused by organic disease. Any defect, disease, or abnormality that materially interferes with the normal ocular function disqualifies for all three classes. Evidence of past or present iritis will be given particular attention, and is disqualifying when found to be other than traumatic in origin.

16. Refraction.—*a. Scope.*—Refraction under a cycloplegic will not be done as a routine procedure, but will be done when deemed necessary by the examiner. Except in presbyopia, corrective lenses will not be prescribed unless a complete refraction has been done under a cycloplegic.

b. Interpretation of findings.—When refraction is accomplished on the original examination, the examinee is disqualified if he requires more than 1.5 diopters correction in any

meridian in order to read 20/20, each eye, with accommodation paralyzed, or if he requires a cylindrical correction of more than 0.50 diopter, in any meridian, whether plus or minus, in order to read 20/20 with accommodation paralyzed. Aviation cadets undergoing training as navigators, and rated navigators, may be qualified in class 2 with waiver, regardless of the amount of correction required to correct vision to 20/20.

17. Ophthalmoscopic examination.—*a. Scope.*—An ophthalmoscopic examination will be conducted on all examinees. A mydriatic will be employed, if indicated.

b. Interpretation of findings.—Any abnormality discovered by the ophthalmoscopic examination that interferes with the normal ocular function disqualifies for all three classes. In case a condition of the fundus is found in which it cannot be immediately determined whether the lesion is pathological, the applicant will be reexamined at a later date to determine whether there has been any change or progression of the condition. Attention is directed to the fact that pathological conditions of the retina and choroid are most frequently indicative of extraocular or systemic diseases. Particular attention will be paid to the ophthalmoscopic examination of individuals past midlife, where arteriosclerosis may be suspected or where there is a history of rheumatic or of focal infection, such as dental foci and chronic disease of the nasal accessory sinuses. In rated flying personnel, repeated ophthalmoscopic examination is indicated following head injury with fracture, concussion, or period of prolonged unconsciousness. Any abnormality found will be classified and described accurately, and where possible, substantiated by objective tests (confrontation test and tangent screen test). Lenticular opacities will be described as to appearance, location, and interference with function.

18. Ear examination.—*a. Scope.*—An ear examination will be conducted on all examinees, and will consist of an objective and a subjective examination. Hearing will be tested by the whispered voice test and when found defective the spoken voice test and the audiometer, if available, will be used. The audiometer record will be attached to and forwarded with the report of examination.

b. Interpretation of objective findings.—On original examination the following conditions are causes for rejection:

- (1) Evidence of serious post inflammatory process interfering with the auditory or vestibular functions.
- (2) Existing perforation of the tympanic membrane.
- (3) Acute otitis media or externa temporarily disqualifies until the condition is cured with no existing disturbance of function.
- (4) Marked retraction of the tympanic membrane with limitation of its mobility or if associated with occlusion of the eustachian tube.
- (5) Persistent tinnitus aurium disqualifies for any class on original examination. Tinnitus aurium is temporarily disqualifying for classes 1 and 2 for rated personnel and personnel undergoing flying training.

c. Interpretation of subjective findings.

- (1) *Voice test.*—On applicants for air crew training and applicants for original aeronautical rating, hearing must be 20/20 in each ear for whispered voice. For trained flying personnel to be qualified in class 1, the hearing must be 20/20 in each ear for low conversational voice. For class 2, the hearing must not fall below 15/20 for low conversational voice. For class 3, the hearing must not fall below 8/20 for the low conversational voice.
- (2) *Audiometer.*—Findings will be reported in decibels of hearing loss. For class 1, the average hearing loss must not be more than 20 decibels. For classes 2 and 3, no qualifying standards are set, but qualifications will be based on the results of low conversational voice test.

19. Nose and throat examination.—*a.* A nose and throat examination will be conducted on all examinees. Except as modified below, the examination of the nose and throat will be governed by the provisions of AR 40-105. Transillumination and the X-ray will be

employed when such procedures are indicated. In addition, the following conditions, either of a temporary or permanent nature, disqualify:

- (1) Congenital or acquired stenosis of the nares or choanae disqualify permanently, if not correctible.
- (2) Atrophic rhinitis.
- (3) Hypertrophic rhinitis, if severe or associated with polypoid degeneration.
- (4) On the original examination nasal polyps disqualify. In rated personnel, nasal polyps are disqualifying until corrected.
- (5) Any irremediable defect or abnormality that materially interferes with the respiratory or olfactory function or with phonation.

b. Certain other conditions which may be considered temporary or transient in nature will disqualify until removed or improved by treatment:

- (1) Acute and chronic tonsillitis. Hypertrophied tonsils will not be cause for rejection unless a history of frequent sore throat is obtained or there is evidence of septic absorption.
- (2) Deviation of the nasal septum resulting in an estimated 50 percent or more obstruction.
- (3) Marked septal spur formations which impinge on the inferior turbinate and interfere with the normal drainage of the accessory sinuses.
- (4) Occlusion of one or both eustachian tubes.
- (5) Acute or chronic sinusitis.
- (6) Ulcerated condition of the nasal mucosa.
- (7) Any acute condition of the nose, nasopharynx, mouth, tongue or larynx that seriously interferes with normal function.

20. General physical examination.—Except as herein modified, the general examination will be governed by the provisions of AR 40-100 and 40-105.

a. *History*.—History of the following will disqualify original applicants for air crew training and flying personnel on subsequent examinations for flying:

- (1) Encephalopathy following acute encephalitis or any illness accompanied by diplopia or lethargy.
- (2) Paroxysmal tachycardia.
- (3) Arthritis of the atrophic (rheumatoid) type, hypertrophic arthritis which is either symptomatic or more than mild in degree, or history of recent or recurrent attacks of rheumatic fever.
- (4) Sydenham's chorea.

(5) *Syphilis*.—History of syphilis on original applicants for air crew training will disqualify unless applicant is able to produce acceptable documentary proof that all the provisions of treatment as contained in existing War Department instructions have been fulfilled. In all such cases, the documentary proof aforementioned will be presented through military channels to the Commanding General, Army Air Forces, with a request for waiver.

(6) *Presence of kidney stone*.—A substantiated history of repeated attacks of renal or ureteral colic, due to calculus, will disqualify for air crew training. Individuals undergoing flying training or those holding an aeronautical rating will not be disqualified, provided X-ray of the kidney, ureter, and bladder shows no evidence of urinary concretions; excretory urography indicates no evidence of congenital or acquired anomaly; and the function of both kidneys is normal.

(7) *Malaria*.—A history of malaria disqualifies original civilian applicants for air crew training unless such individuals can present acceptable proof that they have been free of symptoms for 3 months. Original applicants in the military service must present proof from official records that their peripheral blood has been free of parasites for a period of 30 days. In either case a blood examination

must indicate the absence of parasites in the peripheral blood at the time of examination.

- (8) *Asthma of any degree.*—History of asthma other than in childhood with trustworthy history of freedom of manifestations during the preceding 10 years.
- (9) *Hay fever.*—Hay fever is disqualifying, unless the examiner is satisfied it is mild in degree.
- (10) *Mastoid.*—History of simple mastoidectomy is disqualifying for original applicants unless a period of 1 year has elapsed since operation, during which time there have been no symptoms or sequelae and there exists no disturbance of function.
- (11) *Otitis media.*—History of recent acute otitis media on original applicants is disqualifying, unless a period of 6 weeks has elapsed since recovery and function is in no way affected.
- (12) *Head injury.*—Applicants for air crew training with history of cranio-cerebral injury will be temporarily disqualified pending final action by higher authority. In all such cases, the medical examiner will cause to have assembled hospital records, statements by attending physicians, X-ray films and other documentary evidence pertinent to the case, which will be forwarded with the report of physical examination to the Air Surgeon, Headquarters Army Air Forces, for final decision. After review of such cases by the air surgeon, the various allied papers will be returned with final action to the examining board concerned.

b. Height and weight.—Except as herein modified, this phase of the examination will be governed by AR 40-105. On the original examination for air crew training no applicant will be accepted for flying training who is less than 60 inches or greater than 76 inches in height, or whose weight falls below the minimum for age and height, or exceeds 200 pounds in any case. The average weight for height and age with the permissible variations therefrom will be in accordance with the standards as outlined in AR 40-105.

c. Cranio-cerebral injury.—Reference to history of cranio-cerebral injury is made in *a* above. Individuals undergoing air crew training who sustain a severe cranio-cerebral injury will be disqualified for a period of 1 year after which time reconsideration may be recommended. In cases of rated flying personnel who sustain a cranio-cerebral injury, final action will be taken by the Commanding General, Army Air Forces.

d. Body measurements, posture, frame, skin, head, face, neck, chest respiratory system, abdomen, gastro-intestinal system, genito-urinary system, endocrine system, bones, joints, and extremities.—The standards for examination will be in accordance with AR 40-105.

e. Cardiovascular system.—Except as herein modified, the examination of the heart and blood vessels will be governed by AR 40-105. An electrocardiogram will be made on annual or special examinations on all rated Air Corps personnel who have reached 40 years of age. Any abnormalities will be fully described and the tracing will be submitted with the report of physical examination.

- (1) *Blood pressure.*—No examinee will be disqualified as the result of a single reading. When the blood pressure estimation at the first examination is regarded as abnormal, or in case of doubt, the procedure will be repeated (morning and afternoon) for a sufficient number of days to enable the examiner to arrive at a definite conclusion. When the blood pressure requires rechecking, this will be done with the applicant in a sitting position and all readings taken will be recorded. Systolic blood pressure, if examinee is 25 years of age or under, will not persistently exceed 140 millimeters. A low diastolic pressure will suggest the presence of aortic insufficiency. A diastolic pressure of 95 millimeters or over in itself disqualifies. In the case of applicants for flying training, a persistent systolic blood pressure of 135 millimeters or more or a persistent dias-

tolic blood pressure of 90 millimeters or more, or an unstable blood pressure disqualifies. In recording the pulse rate and blood pressure systolic and diastolic, under paragraph 27, W.D., A.G.O. Form No. 64, both the prone and standing findings will be entered in the following manner: Pulse rate, 75-80; B.P.: S 108-112, D 76-80.

(2) *Schneider Index*.—This test will be performed in all examinations for flying.

(a) The index will be used as a check of the physical condition of the examinee in connection with other findings. A candidate will never be disqualified on the index alone, but an index of less than 8 will cause the examiner to have the candidate return for further observation.

(b) Points of grading cardiovascular changes (Schneider Index):

A. Reclining, pulse rate		B. Pulse rate increase on standing				
		0 to 10 beats	11 to 18 beats	19 to 26 beats	27 to 34 beats	35 to 42 beats
	<i>Points</i>	<i>Points</i>	<i>Points</i>	<i>Points</i>	<i>Points</i>	<i>Points</i>
50 to 60.....	3	3	3	2	1	0
61 to 70.....	3	3	2	1	0	-1
71 to 80.....	2	3	2	0	-1	-2
81 to 90.....	1	2	1	-1	-2	-3
91 to 100.....	0	1	0	-2	-3	-3
101 to 110.....	-1	0	-1	-3	-3	-3

C. Standing, pulse rate		D. Pulse rate increase immediately after exercise				
		0 to 10 beats	11 to 20 beats	21 to 30 beats	31 to 40 beats	41 to 50 beats
	<i>Points</i>	<i>Points</i>	<i>Points</i>	<i>Points</i>	<i>Points</i>	<i>Points</i>
60 to 70.....	3	3	3	2	1	0
71 to 80.....	3	3	2	1	0	0
81 to 90.....	2	3	2	1	0	-1
91 to 100.....	1	2	1	0	-1	-2
101 to 110.....	1	1	0	-1	-2	-3
111 to 120.....	0	1	-1	-2	-3	-3
121 to 130.....	0	0	-2	-3	-3	-3
131 to 140.....	-1	0	-3	-3	-3	-3

E. Return of pulse rate to standing normal after exercise		F. Systolic pressure standing compared with reclining	
	<i>Points</i>		<i>Points</i>
0 to 30 seconds.....	3	Rise of 8 millimeters or more.....	3
31 to 60 seconds.....	2	Rise of 2 to 7 millimeters.....	2
61 to 90 seconds.....	1	No rise.....	1
91 to 120 seconds.....	0	Fall of 2 to 5 millimeters.....	0
After 120 seconds: 2 to 10 beats above normal.....	-1	Fall of 6 millimeters or more.....	-1
After 120 seconds: 11 to 30 beats above normal.....	-2		

- (3) On the original examination a definite diagnosis of vasomotor instability or neurocirculatory asthenia disqualifies.

f. Teeth, gums, and mouth.—The teeth, gums, and mouth will be thoroughly examined by an officer of the Dental Corps, when available. Original applicants for air crew training are acceptable who are well nourished, of good musculature, are free from gross dental infections, and meet the following minimum requirements:

- (1) *In the upper jaw.*—Edentulous, if corrected or correctible by a full denture.
- (2) *In the lower jaw.*—A minimum of a sufficient number of natural teeth in proper position and condition to stabilize or support a partial denture which can be removed and replaced by the individual and which is retained by means of clasps with or without rests, to stabilize or support the denture.

Interpretation of the above is that candidates must have at least two natural teeth in the lower jaw, one on each side in such a position that they would serve as support or attachment for a partial denture. The teeth may be cuspid, bicuspid, or molar teeth, but not incisors.

- (3) *Malocclusion.*—When it is evident from the individual's general physical condition and his occupation in civil life that malocclusion has not seriously interfered with the mastication of a normal diet, then he is acceptable for air crew training provided that in the excursions of the mandible or with the mandible at rest, the teeth do not impinge upon opposing soft tissues and that the malocclusion has not resulted in secondary pathological changes. If the malocclusion is considered severe and disqualifying, and if in the opinion of the board the individual's experience and ability are such that his acceptance is recommended, dental casts will be made and forwarded to the headquarters, Army Air Forces, Washington, D.C., for decision as to his qualifications.

21. *Nervous system.*—The examiner will carefully study the provisions of AR 40-105 and MR 1-9, and in addition, special attention will be given to *a* and *b* below. On the original examination a careful medical history will be taken. When the applicant has been found to have a definitely permanent disqualifying physical defect or abnormality such history will not be necessary. On examination subsequent to the original one the examiner will be guided largely by his personal knowledge and observation of the examinee, particularly in arriving at a conclusion relative to abnormal findings of a nervous or mental nature.

- a. (1) Family history.*—Inquire for psychotic and psychoneurotic manifestations in the record, and if such are found, examine carefully for degenerative modifications expressing transmitted taint. However, if the candidate is found normal, then the isolated occurrence of mental disturbance in ancestors will be deemed negligible; the examiner will not overvalue the influence of direct heredity but duly weigh all considerations pertinent to the situation.

- (2) *Personal history.*—The infantile period will be searched for evidence of retardation, and particular study made of the factors which obtained during the formative years and which determine the personality trend. To this end study will be made of the family life, play life, sex life, school and college life, trends of thought, athletic tendencies, degree of manual dexterity, personal and family attitude toward flying, reactions concerning the ordinary stresses of life, and particularly the probable reactions under the special stresses incident to flying.

b. Neuropsychiatric and psychological.—The personal history will be searched on the points mentioned below in order to develop and complete the balance of the examination.

- (1) *Gait.*—To be observed and interpretation of abnormalities to be stated clearly.
- (2) *Coordination.*
 - (a) *Equilibratory.*

- (b) *Nonequilibrium*.—Any disturbances or ataxias will be interpreted and carefully recorded.
- (3) *Reflexes*.
- (a) *Superficial*.
- (b) *Deep*.
- (c) *Pathological*.—Abnormalities will be interpreted as to cause and effect. Any pathological reflexes will be noted and opinion as to cause stated.
- (4) *Spontaneous or auxiliary movements*.
- (a) *Tremor*.—State whether fibrillary, fine, or coarse. Name part or parts affected, and state whether of the intention or continuous type. Interpretation of abnormalities will be clearly stated.
- (b) *Tics*.—Name part or parts affected. Either organic or functional tics disqualify on original examination and demand searching inquiry as to cause and effect in rated flying personnel. In the latter case, if found to interfere with performance of flying duties, such tics disqualify.
- (5) *Muscle status*.—The volume and contour will be carefully observed. Any atrophies or hypertrophies with their location will be noted.
- (6) *Sensory disturbances*.—These have either a psychogenic or organic basis and are sufficient cause for rejection and, because of their etiology, disqualify.
- (7) *Cranial nerves*.—The cranial nerves will be appropriately tested and all abnormalities noted and recorded.
- (8) *Vertigo*.—Vertigo other than that of a transient nature disqualifies.
- (9) *Psychomotor tension*.—To be interpreted in terms of ability or inability voluntarily to relax. The examiner notes if the general attitude of the examinee is one of composure and relaxation or of agitation and tenseness. Increased tension is present in stateness, may be present in organic nervous disease, and may be indicative of psychoneurotic coloring.
- (10) *Peripheral circulation*.—Examine for flushing, mottling, and cyanosis of face, trunk, and extremities. Note the presence of localized sweating (axillae and palms) and cold extremities.
- (11) *Tobacco*.—Its moderate use is permissible. Excessive use requires examination for deleterious effects and significance as a nervous habit.
- (12) *Alcohol*.—Excessive use disqualifies.
- (13) *Drugs*.—Having eliminated drug addiction, inquire whether there is habitual use of medicines for ailments, either mild or severe. Such habitual resort to medicines for any condition fancied or real disqualifies.
- (14) *Sleep disturbances*.
- (a) *Insomnia*.—When persistent, disqualifies on original examination and is cause for grounding the flyer.
- (b) *Paros nocturnus*.—To be duly weighed in association with related factors.
- (c) *Somnambulism*.—Somnambulism is disqualifying providing the history indicates definite somnambulist tendencies and warrants the diagnosis of somnambulism. It will be a cause for rejecting all original applicants for flying training and for grounding of flying personnel.
- (15) *Headaches*.—An occasional mild headache may be considered negligible, but if of frequent occurrence or of migraine type, disqualifies.
- (16) *Fainting*.—History of repeated fainting without reasonable and adequate cause disqualifies.
- (17) *Head injuries*.—History of severe head injuries must be fully evaluated with special reference to residuals.
- (18) *Amnesia*.—Amnesia may be partial or complete, of psychogenic or organic etiology. Cause and type will be recorded. Discovery of pathological memory defects will disqualify on original examination. Amnesia following a head in-

jury is disqualifying in student flyers; however, in the case of rated pilots and observers and others on flying status, a history of amnesia, following a head injury, may receive consideration for waiver. Distinction must be made between amnesia and unconsciousness.

- (19) *Epilepsy*.—Major or minor seizures disqualify. The most searching investigation will be made of the entire life record, not only for a history of seizures, either major or minor, but for those equivalents indisputably establishing the epileptic background. Sufficient preponderance of such equivalents with or without seizures disqualifies.
- (20) *Obsessions and phobias*.—Obsessive doubts, indecisions, and vacillations may be of a remarkable variety and apparent absurdity. Phobias are of the most diverse variety. Care will be exercised in differentiating between mere aversion and dislike on the one hand and morbid, unreasonable fear or dread on the other. When obsessions or phobias motivate conduct in directions interpreted as odd and peculiar it expresses fundamental instability and disqualifies.
- (21) *Speech defects*.—A definite history of stammering or stuttering disqualifies on original examination. If either develops in the flyer it is cause for grounding for further observation. If the difficulty is in articulation, that is, if the speech musculature or its innervation is impaired, due consideration will be given it as being cause for disqualification.
- (22) *Temperament*.—Temperament is a complex factor very difficult of definition; however, it will be considered as the fundamental and prevailing life mood peculiar to the individual personality, and will especially be noted in the examinee as to irritability, apathy, elation, or depression. If these are found in such a degree as to be pathological on the original examination, they disqualify. In flying personnel they are cause for grounding either temporarily or permanently, depending on the result of further observation to determine the etiology, diagnosis, and prognosis.
- (23) *Anxiety trends*.—Deeply seated worries approximating the anxiety type, and anxiety neurosis, or history of inadequate handling of past mental stresses disqualifies on original examination. If found in the pilot or others on flying status, they are cause for temporary disqualification, depending on the outcome of competent observation and diagnosis.
- (24) *Instability*.
 - (a) *Nervous*.—Inability to maintain a uniformity and continuity of consciousness disqualifies unless there is some reasonable explanation for it.
 - (b) *Emotional*.—Undue fluctuation in mood disqualifies on the original examination, and is cause for grounding the flying personnel temporarily or permanently.
 - (c) *Mental*.—Inability to keep the selective motive dominant and to make a coordinated effort disqualifies on the original examination, and is cause for grounding the flying personnel temporarily or permanently.
 - (d) *Cardiovascular*.—Undue fluctuation of blood pressure or pulse rate disqualifies on the original examination, and is cause for grounding temporarily or permanently.
- (25) *Reaction time*.—Slow reaction time as disclosed by such tests and in excess of such limitations as may be prescribed by the Commanding General, Army Air Forces, from time to time disqualifies on original examination.
- (26) *Reality adjustment*.—In the study of the examinee a review is made of his total experience. Each candidate will be found to have met with situation difficulties requiring solution. The extent and type of these difficulties will, of course, vary with the individual. The manner in which he has met worries, handled conflicts, and sublimated complexes is an indication of the degree to

which he can adjust himself to his environment. The study will determine whether he is inherently stable or unstable.

- (27) *Estimated adaptability for military aeronautics*.—Required on original examination for flying training, thereafter only when specially indicated. Predetermination of ability to qualify as a military aviator, of any type, is difficult. The examiner will therefore utilize all aid available in arriving at a conclusion. These aids will include the examinations set forth in these regulations, as well as such neuromuscular, coordination, and psychological examinations of whatever nature, as may be authorized by the Commanding General, Army Air Forces. These examinations when considered as a whole and woven into a complete pattern will establish the fitness, stability, and endowment which make for success in training and performance in the air. No one individual will show all favorable reactions and traits and no unfavorable ones, but a predominance of one or the other will determine qualification or disqualification. The assessment of the adaptability will be expressed as satisfactory or unsatisfactory, supported by a rated scoring as authorized. If unsatisfactory, the reason therefor will be clearly stated.

[A.G. 702 (8-29-42).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:

A.

APPENDIX F

Tabular Summary of Physical Standards

Note.—The 20 tables that make up this Appendix were originally prepared by Mrs. Ida Hellman. The material was checked, rearranged, and set up in final form by Mrs. Claire M. Sorrell, Historian, of the General Reference and Research Branch, The Historical Unit, ably assisted by Mrs. Dreama E. Black and Mrs. Cavell B. Lo Presti, of the Administrative Branch, The Historical Unit.—C.M.W.

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TABLE 1.—*General and miscellaneous defects*

Acceptability	Time period in effect			
	31 Aug. 1940-11 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-18 Apr. 1944	19 Apr. 1944
General service.	Acute communicable diseases, provided acceptance of the registrant is temporarily deferred until a final examination shows recovery without disqualifying sequelae.	No change.	No change.	Individuals with acute pathological conditions including acute communicable diseases except venereal diseases, from which in the natural course of the disease recovery occurs without sequelae, will be deferred until a final examination shows recovery has occurred without disqualifying sequelae.
	Uncinariasis, unless severe. Remediable incapacity due to recent acute illness or injury or to employment or environment in civil life.	No change. Remediable incapacity due to recent acute illness, surgical operation, injury, employment or environment in civil life; provided acceptance is deferred until recovery is complete. Following uncomplicated appendectomy registrants should be deferred for 3 months before acceptance. Following remediable hernia repair, individuals should be deferred for 6 months.	No change. No change.	Uncinariasis, if mild. No change.
	All above entries deleted and the following substituted . . . defects . . . will be regarded as causes for rejection . . . until there has been recovery without disqualifying sequelae. Medical examiners will reject all men who are in need of hospitalization, and all those who by reason of physical defects are considered unfit for early participation in training activities (WD Cir. 110, 4 Oct. 1940).			

Limited service.	Temporary incapacity as cited in general service, if not easily remediable to a degree compatible with unlimited service, but which is considered acceptable for special or limited service.	No change.	No change.	There are no general or miscellaneous defects to warrant initial selection for limited service which are not covered elsewhere in these regulations.
Nonacceptable.	Carcinoma or other malignant disease of any organ or part of the body.	No change.	No change.	No change.
	Active tuberculosis of whatever degree and whether general or localized.	No change.	No change.	No change.
	Leprosy and actinomycosis.	No change.	No change.	No change.
	Irremediable metallic poisoning, except argyria.	No change.	No change.	No change.
	Mycotic infection of the lungs or other internal organs.	No change.	No change.	No change.
	Acute rheumatic fever or recurrent attacks of rheumatic fever, chronic articular "rheumatism" and chronic arthritis, if occurrence is verified and malingering is excluded.	Acute rheumatic fever or history of recurrent attacks of rheumatic fever, chronic articular "rheumatism" and chronic arthritis, if occurrence is verified and malingering is excluded.	No change.	Acute rheumatic fever, or verified history of single or recurrent attacks of rheumatic fever within the previous 2 years.
	Filariasis and trypanosomiasis.	No change.	No change.	Filariasis, trypanosomiasis, amebiasis or schistosomiasis.
	Hodgkin's disease.	No change.	No change.	No change.
	Unchariasis, if severe.	No change. ²	No change.	Unchariasis, if more than mild.
		Splenectomy for any cause.	Splenectomy for any cause, other than trauma or congenital hemolytic icterus.	No change.
				Osteoarthritis or rheumatoid arthritis.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 2.—Height, weight, and chest measurements

Height <i>Inches</i>	Standard		Minimum		Height <i>Inches</i>	Standard		Minimum	
	Weight <i>Pounds</i>	Chest measurement at expiration <i>Inches</i>	Weight <i>Pounds</i>	Chest measurement at expiration <i>Inches</i>		Weight <i>Pounds</i>	Chest measurement at expiration <i>Inches</i>	Weight <i>Pounds</i>	Chest measurement at expiration <i>Inches</i>
60	116	31.25	105	28.75	70	152	33.75	133	31.25
61	119	31.50	107	29	71	156	34	137	31.50
62	122	31.75	109	29.25	72	160	34.25	141	31.75
63	125	32	111	29.50	73	164	34.50	145	32
64	128	32.25	113	29.75	74	168	34.75	149	32.25
65	132	32.50	115	30	75	172	35	153	32.50
66	136	32.75	117	30.25	76	176	35.25	157	32.75
67	140	33	121	30.50	77	180	35.50	161	33
68	144	33.25	125	30.75	78	184	35.75	165	33.25
69	148	33.50	129	31					

Acceptability	Time period in effect	
	31 Aug. 1940 ¹	19 Apr. 1944
General service	Those who fall within the requirements for height, weight, and chest measurement given in the above table.	
Limited service	Those whose weight is greater than the standards indicated for the height, provided the overweight is not so excessive as to interfere with military training. Registrants who on examination are found to present conditions not within the accepted measurements for weight and chest circumference given in the table who are otherwise mentally and physically fit, and who do not fall within nonacceptable, may be accepted for special or limited military service.	
Nonacceptable	Less than 60 inches in height. Less than 105 pounds in weight. Over 78 inches in height. Overweight which is greatly out of proportion to the height if it interferes with normal physical activity or with proper training.	

¹Mobilization Regulations No. 1-9, dated as per initial date of each column head unless otherwise indicated.

TABLE 3.—*Defects of the eye*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-2-18 Apr. 1944	19 Apr.-7 Sept. 1944
General service.	In each eye 20/100 with out glasses, if correctable with glasses to 20/40 bilateral. Per WD Cir. 43, 12 Feb. 1942: Registrants whose visual acuity is below 20/100 but not below 20/200 in each eye without glasses if correctable to 20/40 in each eye.	For general military service in all arms and services.—Registrants whose visual acuity is not less than 20/100 in each eye without glasses, if correctable to 20/40 in each eye. For general military service in all noncombatant services.—Registrants whose visual acuity is below 20/100 but not below 20/200 in each eye without glasses, if correctable to 20/40 in each eye.	Registrants whose visual acuity is not less than 20/200 in each eye without glasses, if correctable to at least 20/40 in each eye. Per AG Letter effective 1 Feb. 1943 to CGs, Svc Comds, 22 Jan. 1943: Minimum vision of 20/70 in one eye and in the other eye at least 20/25 without glasses. Per AG Letter effective 1 June 1943 to CGs, Svc Comds, 27 May 1943: Minimum visual acuity of 20/70 in one eye and in the other eye at least or, 20/40 with both eyes open without glasses, provided vision is not below 20/70 in either eye, and provided that the defective vision is not due to an organic disease.	Registrants whose visual acuity is not less than 20/200 in each eye or 20/100 in one eye and 20/400 in the second eye, if vision is correctable to either 20/40 in each eye, and provided the defective vision is not due to active or progressive organic disease. The actual possession of suitable glasses by an individual is not required for his acceptance under these standards.	No change.
				Registrants whose visual acuity without glasses is not less than 20/200 in each eye, if vision is correctable to 20/40 in each eye, and provided the defective vision is not due to active or progressive organic disease. The actual possession of suitable glasses by an individual is not required for his acceptance under these standards.	Registrants whose visual acuity without glasses is not less than 20/200 in each eye, if vision is correctable to 20/40 in each eye, and provided the defective vision is not due to active or progressive organic disease. The actual possession of suitable glasses by an individual is not required for his acceptance under these standards.

See footnotes at end of table.

TABLE 3.—*Defects of the eye—Continued*

Acceptability	Time period in effect					
	31 Aug. 1940 to 14 Mar. 1942	15 Mar. to 14 Oct. 1942	15 Oct. 1942 to 21 Jan. 1943	22 Jan. 1943 to 18 Apr. 1944	19 Apr. to 7 Sept. 1944	8 Sept. 1944 to
General service — Continued	Conditions due to iridectomy or other operation upon the eye, if the condition for which the operation was performed has been relieved and the vision is within or above the minimum standard requirements.	No change.	No change.	Conditions due to iridectomy or other operation upon the eye, if the condition for which the operation was performed has been relieved and the vision is within or above the minimum standard requirements. Per AG Letter effective 1 Feb. 1943 to CGs, Svc. Comds, 22 Jan. 1943: Acuity of vision of 20/25 with both eyes open, without glasses, provided the vision in the worse eye is not less than 20/70.	Conditions due to iridectomy or other operation upon the eye, if the condition for which the operation was performed has been relieved and the vision is within or above the minimum standard requirements.	No change.
Slight nystagmus.		Nystagmoid movements if not persistent or pronounced and if true nystagmus is excluded.	No change.	No change.	No change.	No change.
Slight conjunctivitis.		No change.	No change.	No change.	No change.	No change.
Chronic simple conjunctivitis occurring in regions where trachoma is prevalent and if easily remediable.		Chronic simple conjunctivitis, if mild.	No change.	No change.	No change.	No change.
Slight adhesion of the lid to the eyeball.		No change.	No change.	No change.	No change.	No change.
Small pterygium.		Small pterygium not encroaching on cornea.	No change.	No change.	Small pterygium not encroaching on cornea so as to interfere with vision.	No change.

Ptoxis which does not interfere with vision. Strabismus which does not interfere with vision. Color blindness. Exophthalmos, if not of such degree as to have led to, or threatened, corneal ulceration, and provided hyperthyroidism is excluded.	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
A minimum vision of 20/400 in each eye without glasses, if correctable with glasses to 20/40 in either eye.	Blepharitis marginalis, if slight.	No change.	No change.	No change.
	Blepharospasm, if mild.	No change.	No change.	No change.
	Superficial corneal ulcer, provided acceptance is deferred until ulcer is healed without disqualifying impairment of vision.	No change.	No change.	No change.
Loss of one eye or blindness in one eye not due to progressive organic change, with vision in the other eye of not less than 20/200 correctable to not less than 20/40.	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
Limited service.	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
A minimum vision of 20/400 in each eye without glasses, correctable to 20/40 in one eye and 20/70 in the second eye, or 20/30 in one eye and 20/100 in the second eye.	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
Loss of one eye (anophthalmos) or any degree of defective vision in one eye from below 20/400 to no light perception, if such defective vision is not due to active or progressive organic disease, with vision in the other eye of 20/100 without glasses, correctable to 20/20 with glasses.	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.
	No change.	No change.	No change.	No change.

See footnotes at end of table.

Nonacceptable.	Vision less than the minimum requirements for special and limited military service.	No change.	No change.	No change.	No change.	No change.
	Disfiguring cicatrices of eyes.	No change.	No change.	No change.	No change.	No change.
	Lagophthalmos, if associated with signs of hyperthyroidism.	No change.	No change.	No change.	Lagophthalmos, if extreme.	No change.
	Pronounced exophthalmos.	No change.	No change.	No change.	No change.	No change.
	Chronic keratitis.	No change.	No change.	No change.	No change.	No change.
	Chronic recurrent inflammatory disease of the globe.	No change.	No change.	No change.	Chronic recurrent inflammatory disease of the cornea or uveal tract.	No change.
	Deep chronic ulcer of cornea.	Chronic ulcer of cornea.	No change.	No change.	No change.	No change.
	Any active disease of the retina, choroid, or optic nerve.	No change.	No change.	No change.	No change.	No change.
	Detachment of the retina.	No change.	No change.	No change.	No change.	No change.
	Marked nystagmus.	Nystagmus.	No change.	No change.	No change.	No change.
	Glaucoma.	No change.	No change.	No change.	No change.	No change.
	Diplopia due to paralysis of extrinsic ocular muscle, unless mild in degree.	No change.	No change.	No change.	No change.	No change.
	Abnormal conditions of eyes due to disease of the brain.	No change.	No change.	No change.	No change.	No change.

See footnotes at end of table.

TABLE 3.—*Defects of the eye—Continued*

Acceptability	Time period in effect					
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr.-7 Sept. 1944	8 Sept. 1944 ³
Nonaccept- able—Con.	Trachoma	No change. Any tumor of the orbit. Permanent or well- marked strabismus of a severe degree. Deformity of the eyelid or eyelids such as in- version or eversion of a degree that forcible closure fails to cover the eyeball or in which there is a re- sultant conjunctival in- flammation, corneal ir- ritation or a restriction of the rotation of the eyeball.	No change. No change. No change. No change.	No change. No change. No change. No change.	No change. No change. Permanent and well- marked strabismus (over 30° deviation). No change.	No change. No change. No change. No change.
				Ptosis interfering with vision. Trichiasis. Chronic conjunctivitis. Chronic dacryocystitis. Pterygium interfering with vision.	No change. No change. Chronic conjunctivitis, other than mild, simple. No change. No change.	No change. No change. Chronic conjunctivitis. No change. No change.
						Adhesion of the lids to the eyeball. Blepharospasm.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.² Changes No. 1, MR 1-9, 15 Oct. 1942.³ Changes No. 2, MR 1-9, 8 Sept. 1944.⁴ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 4.—*Defects of the ear*

	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
Acceptability					
General service...	Hearing in each ear of 10/20 or better.	No change.	Hearing in each ear of 10/20 or better; 5/20 in one ear and 15/20 in the other; 0/20 in one ear and 20/20 in the other.	Hearing in each ear of 8/15 or better. Effective 1 Feb. 1943 per ACG Letter to C(4s. Sve Comds, 22 Jan. 1943: Hearing, normal, 15/15 in each ear as tested by the whispered voice.	Hearing in each ear of 8/15 or better, or 15/15 in one ear and less than 8/15 in the other.
		Healed scar of mastoid operation without marked deformity and if hearing is not below requirements.	No change.	No change.	No change.
Limited service...	Hearing in one or both ears less than 10/20 but more than 5/20.	Hearing in one or both ears less than 10/20 but not less than 5/20. Complete deafness in one ear if the hearing is not less than 10/20 in the other ear.	No change.	Hearing in one or both ears less than 8/15 but not less than 5/15 in either ear. Deafness in one ear if the hearing is not less than 15/15 in the other ear.	There are no defects in hearing that warrant initial classification for limited service.
	Loss of one or both external ears, if the registrants have followed a useful vocation in civil life and the deformity is not too greatly disfiguring.	No change.	No change.		
		Unilateral atresia of the external auditory canal.	Perforation of the membrana tympani provided there is a trustworthy history of no symptoms of otitis media or disease of mastoid during preceding 2 years.		

See footnotes at end of table.

TABLE 4.—*Defects of the ear*—Continued

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1 43	22 Jan. 1943 ² -18 Apr. 1944	19 Apr. 1944
Nonacceptable...	Hearing less than the minimum hearing prescribed under limited service.	No change.....	No change.....	No change.....	No change.
	Chronic purulent otitis media, with or without mastoiditis.	No change.....	No change.....	No change.....	Purulent otitis media with or without mastoiditis.
	Chronic perforation of membrana tympani.	No change.....		Perforation of the membrana tympani.	No change.
		Atresia of both external auditory canals.		Atresia of the external auditory canal, or tumors of this part.	Severe atresia of the external auditory canal.
				Acute or chronic mastoiditis.	No change.
				Total loss of an external ear.	No change.

¹ M R (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Changes No. 1, M R 1-9, 15 Oct. 1942.

TABLE 5.—*Defects of the mouth, nose, fauces, pharynx, trachea, esophagus, and larynx*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service.	Enlarged tonsils.	No change.	No change.	No change.	No change.
	Adenoids.	No change.	No change.	No change.	No change.
	Small benign tumors of the nasal and buccal mucous membrane.	No change.	No change.	No change.	Deviation of the nasal septum or enlarged turbinates which do not interfere more than mildly with nasal breathing.
	Deviation of the nasal septum or enlarged turbinates which do not seriously interfere with nasal breathing.	No change.	No change.	No change.	No change.
	Acute primary sinusitis, provided the acceptance of the registrant is temporarily deferred for reexamination, if after a reasonable time the sinusitis has disappeared.	No change.	No change.	No change.	No change.
	Alleged stricture of the esophagus which is unattended by evidence of organic disease of the esophagus as shown by a fluoroscopic examination while the registrant is swallowing a barium mixture.	No change.	No change.	No change.	
	Perforation of hard palate, if not associated with a disqualifying disease.	Perforation of hard palate which is not associated with a disqualifying disease and does not seriously interfere with speech.	No change.	No change.	

See footnotes at end of table.

TABLE 5.—*Defects of the mouth, nose, fauces, pharynx, trachea, esophagus, and larynx—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-1-31 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service— Continued	Moderate deformity of the structures of the mouth which does not seriously interfere with mastication or speech.	No change.	No change.	No change.	No change.
	Laryngitis manifested by hoarseness, laryngeal cough, and a congestion of the vocal chords, confirmed by laryngoscopy, unless tuberculous, syphilitic, or malignant in origin.	Laryngitis manifested by hoarseness, laryngeal cough, and congestion of the vocal chords confirmed by laryngoscopy, unless tuberculous, syphilitic, or malignant in origin.	No change.	No change.	No change.
	Hay fever, unless severe.	Hay fever, if mild.	No change.	No change.	No change.
Limited service.	Deviation of the nasal septum which markedly interferes with nasal breathing.	No change.	No change.	No change.	No change.
	Hay fever, if severe.	Hay fever, if moderate.	No change.	No change.	No change.
	Aphonia, with attendant conditions, which disqualify for general military service, if they have followed a useful vocation in civil life.	No change.	No change.	No change.	No change.
Nonacceptable.	Irremediable deformities of the mouth, throat, and nose which interfere with the mastication of ordinary food, with speech, or with breathing.	Nasal polypi, unless severe and irremediable. ³	Nasal polypi, if mild or moderate and not accompanied by evidence of chronic sinus disease.	No change.	No change.
		No change.	Deformities of the mouth, throat, and nose which interfere with the mastication of ordinary food, with speech, or with breathing.	No change.	No change.

Destructive syphilitic diseases of the mouth, nose, throat, larynx, or esophagus, if severe in degree.	Destructive syphilitic disease of the mouth, nose, throat, larynx, or esophagus.	No change.	No change.	No change.
Laryngeal paralysis, due to pressure from aneurysm or tumor.	Laryngeal paralysis due to any cause.	No change.	No change.	No change.
Permanent tracheostomy.	No change.	No change.	Tracheostomy.	No change.
Stricture of the esophagus.	No change.	No change.	No change.	No change.
Chronic sinusitis of the accessory sinuses of the nose, unless mild in degree.	Chronic sinusitis of the accessory sinuses of the nose, if of marked severity.	Chronic sinusitis of the accessory sinuses of the nose.	No change.	No change.
Chronic atrophic rhinitis with offensive odor.	No change.	No change.	No change.	No change.
	Malignant neoplasms of the larynx.	No change.	No change.	No change.
	Nasal polypi, if severe and irremediable.	Nasal polyp, if severe.	Nasal obstruction due to septal deviation, hypertrophic rhinitis, or other causes, if sufficient to cause mouth breathing.	No change.
	Aphonia.	No change.	No change.	No change.
	Hay fever, if severe.	No change.	Chronic laryngitis.	No change.
			Perforation of the hard palate.	No change.
			Stricture or other organic disease of the esophagus.	No change.
			Hardlip.	No change.
			Perforation of the nasal septum associated with interference of function, or ulceration or crusting, and when due to organic disease.	No change.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Changes No. 1, MR 1-9, 15 Oct. 1942.

³ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 6.—*Dental defects*

Acceptability	Time period in effect		
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942
General service.	<p>A minimum of 3 serviceable natural masticating teeth above and 3 below opposing and 3 serviceable natural incisors above and 3 below opposing. (Therefore, the minimum requirements consist of a total of 6 masticating teeth and of 6 incisor teeth.) All of these teeth must be so opposed as to serve the purpose of incision and mastication.</p> <p>Definitions:</p> <p>The term "masticating teeth" includes molar and bicuspid teeth, and term "incisors" includes incisor and cuspid teeth.</p> <p>A natural tooth which is carious (one with a cavity), which can be restored by filling, is to be considered as a serviceable natural tooth.</p> <p>Teeth which have been restored by crowns or dummies attached to bridgework, if well-placed, will be considered as serviceable natural teeth when the history and the appearance of these teeth are such as clearly to warrant such assumption.</p>	<p>Individuals who are well nourished, of good musculature, are free from gross dental infections, and have the following minimum requirements:</p> <p>In the upper jaw: Edentulous, if corrected or correctable by a full denture.</p> <p>In the lower jaw: A minimum of a sufficient number of natural teeth in proper position and condition to stabilize or support a partial denture which can be removed and replaced by the individual and which is retained by means of clasps, with or without rests, to stabilize or support the denture.</p>	<p>Individuals who are well-nourished, of good musculature, are free from gross dental infections, and have a minimum requirement of an edentulous upper jaw and/or an edentulous lower jaw corrected or correctable by a full denture or dentures.</p>

A tooth is not to be considered a serviceable natural tooth when it is involved with excessively deep pyorrhea pockets, or when its root end is involved with a known infection that has or has not an evacuating sinus discharging through the mucous membrane or skin.

Per WD Circ. 43, 12 Feb. 1942:

Individuals with the following defects, formerly classified as limited service, will be regarded as suitable for general service and acceptable for service as indicated below:

Registrants who lack the required number of teeth when, in the opinion of the examining physician, they are well-nourished, are of good musculature, are free of gross dental infections, and have sufficient teeth to subsist on the Army ration.

Malocclusion.—When it is evident from the individual's general physical condition and his occupation in civil life that his malocclusion has not seriously interfered with the mastication of a normal diet, provided that in the excursions of the mandible or with the mandible at rest, the teeth do not impinge upon opposing soft tissues and that the malocclusion has not resulted in secondary pathological changes.

Malocclusion.—When it is evident from the individual's general physical condition that his malocclusion has not seriously interfered with the mastication of a normal diet, provided that in the excursions of the mandible or with the mandible at rest, the teeth do not impinge upon opposing soft tissues and that the malocclusion has not resulted in secondary pathological changes.

See footnote at end of table.

TABLE 6.—*Dental defects*—Continued

Acceptability	Time period in effect	
	31 Aug. 1940–14 Mar. 1942	15 Mar.–14 Oct. 1942
Limited service.	Insufficient teeth to qualify for general service if corrected by suitable dentures.	Insufficient teeth to qualify for general service if the defect is correctable by artificial dentures, provided there is no evidence of extensive areas of infection with multiple abscesses, large cysts, or any other disease of the jaws or oral tissues, the correction of which would require protracted treatment.
Nonacceptable.	Serious disease of the jaw which is not easily remediable and which is likely to incapacitate the registrant for satisfactory performance of general or limited military service.	Diseases of the jaws and associated structures which are irremediable or not easily remedied, or which are likely to incapacitate the individual for satisfactory performance of military duty.
	Extensive irremediable caries. Extensive focal infection with multiple periapical abscess, the correction of which would require protracted hospitalization and incapacity. Irremediable disease of the gums of such severity as to interfere seriously with useful vocation in civil life.	Extensive focal infection with multiple periapical abscesses, the correction of which would require protracted hospitalization. Extensive loss of oral tissue in an amount that would prevent replacement of missing teeth by a satisfactory denture.

¹ Mobilization Regulations No. 1-9, dated as per initial date of each column head unless otherwise indicated.

TABLE 7.—*Defects of the skin—Continued*

Acceptability	31 Aug. 1940-14 Mar. 1942	Time period in effect		19 Apr. 1944
		15 Mar.-14 Oct. 1942	15 Oct. 1942-18 Apr. 1944	
General service— Continued	Unusual skin defects should arouse suspicion of self-inflicted lesions (dermatitis facitita).	No change.	No change.	No change.
	Such defects as chronic diseases of the skin which disqualify for general military service, if the registrant has successfully followed a useful vocation in civil life.	True alopecia areata, provided the existence of syphilis, disqualifying endocrine, neurological or other disqualifying conditions are excluded. No change. ²	True alopecia areata, provided the existence of disqualifying endocrine, neurological, or other disqualifying conditions are excluded. Such defects as chronic diseases of the skin, which disqualify for general military service, if the registrant has successfully followed a useful vocation in civil life. Rescinded, per C-1, MR 1-9, 15 Oct. 1942.	No change. No change. There are no skin criteria to warrant initial selection for limited service.
Nonacceptable	Chronic skin diseases or chronic ulcers of the skin which are so severe or so disfiguring as to incapacitate the registrant for the duties of a soldier or so disfiguring as to render the registrant objectionable in common social intercourse.	Pilonidal cyst or sinus. (If there is only a simple dimpling of the skin or a short simple sinus in the post-anal region, the individual should be accepted for general service.) ² Chronic skin disease, chronic ulcers of the skin, or cured syphilitic lesions which are so severe or so disfiguring as to incapacitate the registrant for the duties of a soldier or so disfiguring as to render the registrant objectionable in common social intercourse.		
	Actinomycosis.	No change.	No change.	No change.
	Dermatitis herpetiformis of long duration.	No change.	No change.	No change.
	Epidermolytic bullous.	No change.	No change.	No change.
	Forms of generalized dermatitis of long duration. Allergic dermatoses if severe and not easily remediable.	Generalized dermatitis of long duration. No change.	No change. Allergic dermatoses, if severe.	No change. No change.

Mycosis fungoides.....	No change.....	No change.....	No change.
Chronic pemphigus.....	No change.....	No change.....	No change.
Lupus vulgaris.....	No change.....	No change.....	No change.
Elephantiasis.....	No change.....	No change.....	No change.
Syphilitic lesions ulcerative in character showing much destruction of tissue which if healed would be unsightly or so scarring as to incapacitate the registrant for military service.			
	Ringworm, if very severe and easily remediable. ²	No change.....	No change.
	Scabies, if very severe and easily remediable. ²	No change.....	No change.
	Cysts and benign tumors of the skin of such size and/or location as to interfere with the normal wearing of military equipment. ²	No change.....	No change.
		Plonidal cyst or sinus. (If there is only a simple dimpling of the skin or short simple sinus in the postanal region, the individual will be accepted for general service.)	No change.
			Plantar warts on weight-bearing areas. Psoriasis, if other than mild.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 16 Mar. 1942, par. 4a(2) (a).

TABLE 8.—*Defects of the head and skull*

Acceptability	Time period in effect		
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-18 Apr. 1944
General service---	Moderate deformities of the bones of the skull of the character of depressions, exostoses, etc., and unassociated with evidence of disease of the brain, spinal cord, or peripheral nerves, and which would not prevent the registrant from wearing military headgear. Defects which are apparently temporary in character due to recent injuries. (This includes contusions and other wounds of the scalp and concussion. Registrants with these defects should have the final examination temporarily deferred.)	No change-----	No change-----
		Abnormalities which are apparently temporary in character resulting from recent injuries. (These include severe contusions and other wounds of the scalp and cerebral concussion. Individuals with these conditions should have the final examination temporarily deferred for 3 months.) No change-----	No change-----
Limited service---	Osseous defects due to decompression or trephine of the skull, if asymptomatic and unassociated with bulging at the site of operation.		Osseous defects due to decompression or trephine of the skull, if asymptomatic and unassociated with bulging at the site of operation. Rescinded, per C-1, MR 1-9, 15 Oct. 1942. No change-----
Nonacceptable---	Deformities of the skull of the nature of depressions, exostoses, etc., of a degree which will prevent registrants from wearing military headgear. Deformities of the skull of any degree associated with evidences of disease of the brain, spinal cord, or peripheral nerves. Hernia of brain; monstrosity of the head or hydrocephalus.	No change-----	No change-----
		No change-----	No change-----
			There are no head defects to warrant initial selection for limited service.

¹ Mobilization Regulations No 1-9, dated as per initial date of each column head unless otherwise indicated.

TABLE 9.—*Defects of the spine, scapula, and sacroiliac joint*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service.	Lateral curvature of the spine of 2 inches or less from the normal midline, if the mobility and weight-bearing power are good.	No change.	No change.	No change.	Lateral deviation of the spine of 1 inch or less from the midline if the mobility and weight-bearing power are good.
	Fracture of the coccyx.	No change.	No change.	No change.	No change.
	Prominent scapula not interfering with wearing of uniform or military equipment.	No change.	No change.	No change.	No change.
	Complaint of disease of the sacroiliac and lumbosacral joints which is unassociated with objective signs and symptoms at the first examination and which on reexamination, after a reasonable period of time, is again found negative.	No change.	Complaint of disease of the sacroiliac and lumbosacral joints which is unassociated with objective signs and symptoms.	No change.	No change.
	Pilonidal cyst or sinus (this usually presents itself in the region between the coccyx and anus), if unattended with disease of the bone as shown by X-ray.	Fracture of the spine or pelvic bones which has healed without marked defects and which has not interfered with the following of a useful vocation in civil life.	No change.	No change.	No change.

See footnotes at end of table.

TABLE 9.—*Defects of the spine, scapula, and sacroiliac joint—Continued*

	Time period in effect				
	31 Aug. 1940-1-14 Mar. 1942	15 Mar.-2-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-2-18 Apr. 1944	19 Apr. 1944
Acceptability					
General service— Continued					
Limited service---	<p>Lateral deviation of the spine from the normal midline of more than 2 inches and less than 3 inches.</p> <p>Nontuberculous diseases of the spine which are unassociated with such rigidity that the registrant has been incapacitated from following a useful vocation in civil life.</p> <p>Diseases of the sacroiliac and lumbosacral joints of a degree which disqualifies for general military service, if the registrants have followed a useful vocation in civil life.</p> <p>Fracture of the spine or pelvic bones which has healed without marked defects and which has not interfered with following a useful vocation in civil life.</p> <p>Tuberculosis, either active or healed, of any portion of the vertebral column.</p>	<p>No change-----</p> <p>Nontuberculous diseases of the spine which are unassociated with such rigidity or other symptoms that the registrant has been incapacitated from following a useful vocation in civil life.</p> <p>No change-----</p>	<p>No change-----</p> <p>No change-----</p> <p>No change-----</p>	<p>No change-----</p> <p>No change-----</p> <p>No change-----</p>	<p>Spina bifida occulta providing it is asymptomatic, unassociated with objective signs and symptoms and can be demonstrated by X-ray examination only.</p> <p>Lateral deviation of the spine from the midline of more than 1 inch and less than 2 inches.</p>
Nonacceptable---		No change-----	Tuberculosis, either active or healed.	No change-----	No change.

Osteoarthritis, partial or complete, of the spinal column if sufficient in degree to interfere with following a useful vocation in civil life.	No change	Osteoarthritis, partial or complete, if sufficient in degree to interfere with the following of a useful vocation in civil life.	No change	Osteoarthritis or rheumatoid arthritis, or chronic arthritis from any cause.
Healed fractures of the vertebrae or pelvic bones with associated disqualifying rigidity.	No change	No change	No change	Healed fractures of the vertebrae or pelvic bones with associated symptoms which have prevented the individual from following a useful vocation in civil life.
Lateral deviation of the spine from the normal midline of more than 3 inches. Curvature of the spine (kyphosis or lordosis) of a degree sufficient to interfere with the wearing of a uniform or military equipment, or which has prevented the registrant from following a useful vocation in civil life.	No change	No change	No change	Lateral deviation of the spine from the midline of more than 2 inches. Curvature of the spine (scoliosis, kyphosis or lordosis) of a degree sufficient to interfere with the wearing of a uniform or military equipment or which has prevented the individual from following a useful vocation in civil life.
Disease of the sacroiliac and lumbosacral joints which is of a chronic type and is obviously associated with pain referred to the lower extremities, muscular spasm, postural deformities, and limitation of motion in the lumbar region of the spine.	No change	Disease of the sacroiliac and lumbosacral joints which is of a chronic type and is obviously associated with pain referred to the lower extremities, muscular spasm, postural deformities, and limitation of motion in the lumbar region of the spine.	No change	No change.
Osteomyelitis or substantiated history of osteomyelitis if active within the past 5 years.				Nucleus pulposus (herniation intervertebral disc) or history of operation for this condition.

¹ M.R. (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Changes No. 1, M.R. 1-9, 15 Oct. 1942.

TABLE 10.—*Defects of the extremities*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943 ² -18 Apr. 1944	19 Apr. 1944
General service.	31 Aug. 1940-14 Mar. 1942	No change.	No change.	No change.	No change.
	Old or recent fractures which have healed spontaneously with no resulting impairment of function.	No change.	No change.	No change.	No change.
	Paralysis of a muscle or group of muscles that does not interfere with function.	No change.	No change.	No change.	No change.
	Benign tumors of bone or defects due to their removal when the condition does not interfere with the function of the extremity or the joint involved.	No change.	No change.	No change.	No change.
	Recent injury of a bone or joint with or without fracture or dislocation which, in the opinion of the examiner, is only temporarily incapacitating. (Resistants with these defects should be given a period of time not less than 6 weeks for recovery before the final examination is made.)	No change.	No change.	No change.	No change.
	Web fingers and toes, unless severe in degree.	No change.	No change.	No change.	No change.
	Absent left thumb. Loss of two fingers of either hand, except a combination of right index and middle finger.	No change.	No change.	No change.	Entire loss of a little finger of either or both hands, or the ring finger of left hand.

Loss of right, index finger, provided right middle finger is present.	No change.	No change.	No change.	Loss of terminal phalanx of the right index finger; loss of the terminal and middle phalanges of one finger, except the right index finger on one or both hands; loss of one phalanx of one or all fingers on one or both hands, provided the function of the hand is ample to permit the performance of general military duty. No change.
Scars and deformities of moderate degree of the hand or hands which do not interfere with normal function.	No change.	No change.	No change.	No change.
Stiff fingers of a degree not to interfere seriously with function.	No change.	No change.	No change.	No change.
Pes planus unless accompanied by marked deformity, rigidity, or weakness, or is of such degree as to have interfered with useful vocation in civil life.	No change.	No change.	No change.	Flat foot unless accompanied with symptoms of weak foot or when the foot is weak on test. Pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, and rigid flat foot are disqualifying regardless of the presence or absence of subjective symptoms. No change.
Hallux valgus unless severe.	No change.	No change.	No change.	No change.
Clubfoot of slight degree if tarsal, metatarsal, and phalangeal joints are flexible and the condition permits the wearing of military shoe and, in the opinion of the examiner, will not interfere with the performance of military duty.	No change.	No change.	No change.	No change.

See footnotes at end of table.

TABLE 10.—*Defects of the extremities—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943 ² -18 Apr. 1944	19 Apr. 1944
General service— Continued	31 Aug. 1940-14 Mar. 1942	No change.	No change.	No change.	No change.
	Slight claw toes not involving obliteration of the transverse arch and which do not interfere with the wearing of a military shoe. Hammer toe which is flexible and which does not interfere with the wearing of a military shoe. (Hammer toe usually involves the second digit and unless it is rigid is not a disqualifying defect.)	No change.	No change.	No change.	No change.
	Absence of one or two of the small toes of one or both feet if the function of the foot is good.	No change.	No change.	No change.	No change.
	Ingrowing toenails.	Ingrowing toenails unless severe. Individuals who have had cartilages removed from the knee joint should be accepted for general military service provided at least 6 months have elapsed since operation and there are no resultant symptoms and provided further that upon careful examination no abnormal movement is elicited.	No change.	No change.	No change.
Limited service.	Loss of thumb of right hand.	Loss of entire thumb of either hand.	No change.	Loss of entire thumb of either hand. Rescinded per C-2, MR 1-9, 15 Oct. 1942.	

Loss of three fingers of either hand, including the right index finger.	Loss of three entire fingers of either hand including the right index finger, provided the thumb remains.	No change.	Loss of two entire fingers of either hand, not to include the right index finger, provided the thumb remains. Rescinded per C-2, MR 1-9, 15 Oct. 1942.	Loss of two entire fingers of either hand, except a combination of the right index and middle finger.
Web fingers or toes, if severe in degree.	No change.	No change.	No change.	No change.
Ganglion and other benign tumors of the hand or fingers.	Ganglion and other benign tumors of the hand or fingers if large or progressive nature.	Ganglion and other benign tumors of the hand or fingers, if they do not interfere greatly with function.	No change.	No change.
Moderate deformities of one or both upper extremities which do not and have not interfered with function to a degree to prevent the registrant from following a useful vocation in civil life.	No change.	No change.	No change.	No change.
Internal derangement of the knee joint if not severe enough to have prevented him from following a useful vocation in civil life.	No change.	No change.	No change.	Internal derangement of knee joint— (1) History of, providing disability has been mild and infrequent. (2) Operation for, providing a period of 6 months has elapsed since operation with freedom from symptoms. Under (1) and (2) above, the knee ligaments should be stable in lateral and anteroposterior directions in comparison with the normal knee; the X-ray should be negative; the thigh musculature not weak or atrophic enough to interfere with function and the full active motion in flexion and extension is present.

See footnotes at end of table.

Ununited fractures which do not interfere with good function. Benign tumors of bone or joint which do not interfere with function.	Old ununited fractures which do not interfere with good function.	No change.	No change.	No change.
Healed disease or injury of wrist or elbow with resulting limitation of motion.	Healed disease or injury of wrist or elbow with resulting limitation of motion, if not severe in degree.	No change.	No change.	No change.
Other defects which, in the opinion of the examining physician, are disqualifying but remediable and which have not prevented the individual from following a useful vocation in civil life.	Other abnormalities which, in the opinion of the examining physician, are disqualifying but remediable and which have not prevented the individual from following a useful vocation in civil life. ³			Clubfoot of slight degree if tarsal, metatarsal, and phalangeal joints are flexible, permitting wearing of a military shoe and, in the opinion of the examiner, will not interfere with the performance of military duty.
Loss of both thumbs.	No change.	No change.	Loss of one or both thumbs.	No change.
Loss of more than three entire fingers of one hand.	No change.	No change.	Loss of the right index finger or more than two entire fingers of one hand.	Loss of more than two entire fingers of either hand.
Chronic inflammatory disease of long duration of one or more of the large joints, with or without smises.	No change.			Osteoarthritis or rheumatoid arthritis, or chronic arthritis from any cause.

See footnotes at end of table.

TABLE 10.—*Defects of the extremities—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Tuberculosis of a bone or joint. (The diagnosis should be based upon the presence of swelling, tenderness, muscular spasm, restriction of joint motion, and the evidence of bone destruction shown by X-ray.)	No change.	No change.	No change.	No change.
	Old ununited fractures which interfere with function or ununited fractures with deformity sufficient to interfere with function.	Old ununited fractures which interfere with function.	No change.	Old ununited fractures.	No change.
	Old unreduced dislocations which have interfered with the registrant following a useful vocation in civil life.	Old unreduced or recurring dislocations which have interfered with the individual following a useful vocation in civil life.	Old unreduced or recurring dislocations of any of the major joints.	No change.	No change.
	Disease of any bone or joint healed with such resulting deformity or rigidity that the function is impaired to a degree that it will interfere with military service.	No change.	No change.	No change.	No change.
	Muscle paralysis or contraction which disturbs function to the degree of interference with military service.	No change.	No change.	No change.	No change.
	Adherent scars of skin or soft tissue to a degree which seriously interferes with function.	No change.	No change.	No change.	No change.

Varicose veins, if severe in degree, or if associated with edema or ulcer of the skin.	No change.	Varicose veins, if severe in degree or if associated with edema or with present or previous ulcer of the skin.	No change.	No change.
Pes planus, if accompanied by marked deformity, rigidity, or weakness, or of such degree as to have interfered with useful vocation in civil life.	No change.	No change.	Flat foot when accompanied with symptoms of weak foot or when the foot is weak on test. Pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus are disqualifying regardless of the presence or absence of subjective symptoms.	Rigid flat foot or flat foot when accompanied with symptoms of weak foot or when the foot is weak on test. Pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, are disqualifying regardless of the presence or absence of subjective symptoms.
Obliteration of the transverse arch associated with permanent flexion of the small toes (claw toes).	No change.	No change.	No change.	No change.
Hallux valgus, if severe and associated with marked exostosis or bunion, especially when there are signs of irritation above the joint.	No change.	No change.	No change.	Hallux valgus, if severe and associated with marked exostosis or bunion.
Clubfoot if marked in degree or which interferes with wearing of a military shoe.	No change.	No change.	No change.	No change.
Diseases of the bone or of the hip, knee, or ankle joint which seriously interfere with function and weight-bearing power.	No change.	No change.	No change.	No change.
Deformities due to fracture or other injury which seriously interfere with function and weight-bearing power.	No change.	No change.	No change.	No change.

See footnotes at end of table.

TABLE 10.—*Defects of the extremities—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943 ² -18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Sciatica which is apparently intractable and disabling to the degree of interference with the function of walking and weight-bearing power. Amputations of extremities in excess of those already cited. Osteomyelitis.	No change.	No change.	No change.	No change.
		No change.	No change.	No change.	No change.
		Active osteomyelitis of any bone, or a substantiated history of osteomyelitis of any of the long bones within the past 5 years.	No change.	Active osteomyelitis of any bone, or a substantiated history of osteomyelitis of any of the long bones at any time.	No change.
					Plantar warts on weight-bearing areas.

¹ MR (Mobilization Regulations) 1-9, dated as per initial date of each column head unless otherwise indicated.² Changes No. 1, MR 1-9, 15 Oct. 1942.³ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 42(2)(a).

TABLE 11.—*Defects of the neck*

Acceptability	Time period in effect		
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-18 Apr. 1944
General service ---	Nonspastic contraction of the muscles of the neck which is not of great degree and will not prevent the wearing of a uniform or military equipment.	No change.	No change.
	Simple goiter or benign thyroid tumors unassociated with toxic or pressure symptoms, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.	Simple goiter unassociated with pressure symptoms, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.	No change.
	Enlarged lymph glands of the neck which are not a manifestation of systemic disease and which apparently do not interfere with the general health, and health and which are not large enough to interfere with the wearing of a uniform or military equipment.	Enlarged lymph nodes of the neck which are not a manifestation of systemic disease, and which apparently do not interfere with the general health, and which are not large enough to interfere with the wearing of a uniform or military equipment.	No change.
Limited service ---	[No standards]	There are no neck criteria to warrant initial selection for limited service.	No change.
Nonacceptable....	Exophthalmic goiter.	No change.	No change.
	Thyroid enlargement from any cause associated with toxic symptoms.	No change.	No change.
			Healed tuberculous lymph nodes when few in number and densely calcified. History of thyroidectomy for nontoxic goiter with complete absence of active manifestations for 2 years. History of thyroidectomy for toxic goiter with complete absence of active manifestations for 2 years. Toxic goiter. Tumor of thyroid or other structures of the neck, including enlarged lymph nodes and benign tumors of the neck, if the enlargement is of such a degree as to interfere with wearing of a uniform or military equipment.

See footnotes at end of table.

TABLE 11.—*Defects of the neck*—Continued

Acceptability	Time period in effect			
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Enlargement of the lymph glands of the neck associated with leukemia and Hodgkin's disease.	No change.	No change.	No change.
	Lymphosarcoma.	No change.	No change.	No change.
	Tuberculous glands.	Tuberculous lymph nodes.	No change.	Tuberculous lymph nodes, except as specified for general service.
	Nonspastic contraction of the muscles of the neck or cicatricial scarring which is disfiguring and unsightly or interferes with wearing of a uniform or military equipment.	Nonspastic contraction of the muscles of the neck or cicatricial contraction of the neck to the extent that it interferes with the wearing of a uniform or military equipment or so disfiguring as to render the individual objectionable in common social intercourse.	No change.	No change.
	Spastic contraction of the muscles of the neck.	No change.	No change.	No change.
	Simple goiter unassociated with toxic or pressure symptoms, enlarged lymph glands of the neck, benign tumors and cysts of the neck, large benign tumors of the parotid gland, if the enlargement is of such degree as to interfere with wearing a uniform or military equipment.	Simple goiter unassociated with toxic pressure symptoms, enlarged lymph nodes and benign tumors of the neck if the enlargement is of such degree as to interfere with wearing of a uniform or military equipment. ²	No change.	Simple goiter, if associated with pressure symptoms confirmed by X-ray, or if enlargement is of such a degree to interfere with wearing of a uniform or military equipment.
		Simple adenomatous goiter. ²	No change.	
		Thyrolingual cyst. ²	No change.	
		Carcinoma of the thyroid or other structures of the neck.	No change.	

¹ MTR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MTR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 12.—*Lungs and chest wall*

Acceptability	Time period in effect				
	31 Aug. 1940–14 Mar. 1942	15 Mar.–14 Oct. 1942	15 Oct. 1942–21 Jan. 1943	22 Jan. 1943–18 Apr. 1944	19 Apr. 1944
General service...	Acute bronchitis, provided acceptance is temporarily deferred until a final examination shows recovery without disqualifying sequelae.	No change.....	No change.....	No change.....	No change.
	Scars of operation for empyema which have healed for 1 year or longer, when the function of the lung is good.	Scars of operation for non-tuberculous empyema which have been healed for 1 year or longer, provided the function of the lung is good. X-ray and physical examination may show some fibrous thickening of the pleura but no evidence of any saccululation or other residue of the empyema.	No change.....	No change.....	Scars of operation for non-tuberculous empyema which has been healed for one year or longer, provided the function of the lung is not significantly impaired, and provided no residue of the empyema other than some fibrous thickening of the pleura is evident upon X-ray and physical examination.
	Fracture of the rib or ribs, provided acceptance of registrant is temporarily deferred until final examination shows recovery with or without deformity, and provided the residual deformity, if any, does not interfere with respiratory movements.	No change.....	No change.....	No change.....	Recent fracture of a rib or ribs, until a final examination shows recovery with or without deformity and provided the residual deformity, if any, does not interfere seriously with respiratory movements.
	Benign tumors of the breast or of the chest wall, provided the enlargement does not interfere with the wearing of a uniform of military equipment.	No change.....	No change.....	No change.....	No change.

See footnotes at end of table.

TABLE 12.—*Lungs and chest wall*—Continued

Acceptability	Time period in effect				
	31 Aug. 1940 to 14 Mar. 1942	15 Mar. to 14 Oct. 1942	15 Oct. 1942 to 21 Jan. 1943	22 Jan. 1943 to 18 Apr. 1944	19 Apr. 1944
General service— Continued	Small palpable lymph nodes of the axilla which apparently do not interfere with the general health.	Small palpable lymph nodes of the axilla which apparently are not evidence of active disease.	No change.	No change.	No change.
		Acute or subacute pneumonia, provided acceptance is deferred until a final examination shows recovery without disqualifying sequelae.	No change.	No change.	So-called atypical or other types of pneumonia, until a final examination shows recovery without disqualifying sequelae. Ordinarily resolution, as shown by X-ray films, will be complete within 2 months. Other cause of the shadow in the X-ray film than pneumonia must be considered if complete clearing has not occurred in 3 months.
		Acute or subacute fibrinous pleurisy, definitely noninfectious in origin, provided acceptance is temporarily deferred until a final examination shows recovery without disqualifying sequelae. Such pleurisy usually is suspected or demonstrated on physical examination, not on X-ray examination.	No change.	No change.	No change.

Limited service	Deformity of clavicle, ribs, or scapula of a degree disqualifying for general military service, but which has not prevented the registrant from successfully following a useful vocation in civil life.	Fibrous pleural scars and adhesions, revealed most often in the roentgenogram as isolated roughening or peaking of an interlobar fissure or of the apical pleura, provided there is no evidence of tuberculosis of the pulmonary parenchyma beyond the limits defined in table 13.	No change	No change	Fibrous pleural scars and adhesions, revealed most often in the roentgenogram by simple thickening of the apical pleura, deformity of the dome of the diaphragm, or visualization of an interlobar fissure, provided there is no evidence of disqualifying tuberculosis of the pulmonary parenchyma.
	Chronic bronchitis, bronchiectasis, or chronic asthma which is mild and which has not prevented the registrant from successfully following a useful vocation in civil life.	Chronic bronchitis which is mild and not associated with emphysema.	No change	No change	Healed fracture of the rib or ribs, provided the residual deformity, if any, does not interfere seriously with respiratory movements.
	Emphysema, or unhealed sinuses of the chest wall following operation for emphysema.	No change	No change	No change	No change.
Nonacceptable	Chronic bronchitis with emphysema except as stated in limited service.	Chronic bronchitis with emphysema.	No change	No change	Emphysema: residual sacculations or unhealed sinuses of the chest wall following operations for emphysema.
	Chronic asthma associated with chronic bronchitis and emphysema, except as stated in limited service.	Bronchial asthma	No change	No change	No change.
	Abscess of the lungs.	No change	No change	No change	No change.

See footnotes at end of table.

TABLE 12—*Lungs and chest wall*—Continued

Acceptability	Time period in effect				
	31 Aug. 1940 to 14 Mar. 1942	15 Mar. to 14 Oct. 1942	15 Oct. 1942 to 21 Jan. 1943	22 Jan. 1943 to 18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Bronchiectasis, if moderate or severe. Actinomycosis	Bronchiectasis. Active mycotic diseases of the lung.	No change. Active mycotic disease of the lung and residual cavitation due thereto. No change.	No change. No change. No change.	No change. No change. No change.
	Tumor of the breast or of the chest wall of such size and location as to interfere with the wearing of the uniform or military equipment.	Any malignant tumor of the breast or the chest wall.	No change.	No change.	No change.
	Tumor of the lung, pleura, or mediastinum.	No change.	No change.	No change.	Tumor of the trachea, bronchi, lung, pleura, or mediastinum.
	Spontaneous pneumothorax.	No change.	No change.	No change.	Spontaneous pneumothorax, history of spontaneous pneumothorax within the last 3 years or history of repeated spontaneous pneumothorax, authenticated by properly dated X-ray films.
		Pulmonary emphysema with impairment of function. Cystic disease of the lung. Silicosis as represented in the roentgenogram by strandlike and nodular shadows or any other form of severe pulmonary fibrosis.	No change. No change. No change.	No change. No change. No change.	Bullous or generalized pulmonary emphysema. No change. No change.

	Foreign body in the lung. A person may be accepted after a foreign body has been removed from a bronchus, provided examination shows recovery without disqualifying sequelae. ³	No change-----	No change-----	No change.
	Benign tumors of the breast or of the chest wall of such size and location as to interfere with the wearing of the uniform or military equipment. ³	No change-----	No change-----	No change.
Tuberculosis of the ribs and other parts of the chest wall.	No change-----	No change-----	No change-----	No change.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Change No. 1, MR 1-9, 15 Oct. 1942.

³ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 13.—*Tuberculosis*¹

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service.	Arrested pulmonary tuberculosis consisting of lesions appearing in X-ray examination as small apical scars, small calcified nodules or localized fibrous strands, in no case exceeding minimal extent as defined in the classification of the National Tuberculosis Association, and when, in addition, in the opinion of the examining physician, this lesion is not likely to be reactivated under conditions of military service.	Apparently healed intrathoracic tuberculous lesions of slight extent demonstrable in the roentgenogram but producing no audible rales after the expiratory cough during physical examination.	No change.	Healed intrathoracic primary tuberculous lesions, demonstrable in roentgenograms, but of slight extent.	Calcified residuals of primary tuberculosis in the pulmonary parenchyma or hilar lymph nodes, provided the size, number, and character of such lesions are not such as to suggest the possibility of reactivation. Well-calcified masses in adult white subjects usually represent entirely healed lesions. Partially calcified and therefore, presumably partially caseous masses in younger subjects, particularly in persons of other than the white race, are potentially hazardous. Clinical judgment is important in rendering a decision. In those cases in which a decision cannot be made on roentgenological grounds alone, it is essential that a careful examination be made by an examiner with special experience in tuberculosis, taking into account the age of the subject, history, and the possible presence of nonpulmonary tuberculosis.

<p>Minimal pulmonary lesions are defined as slight lesions without demonstrable excavation confined to a small part of one or both lungs. The total extent of the lesions, regardless of distribution, will not exceed the equivalent of the volume of lung tissue which lies above the second chondrosternal junction and the spine of the fourth or body of the fifth thoracic vertebra on one side.</p>	<p>The following specifications of the limits of such lesions are intended to exclude persons with disease which is most likely to be in part casuous and therefore potentially hazardous. The limits are set arbitrarily to provide an objective basis on which the examiner may render a decision. All measurements refer to single, standard 14-by 17-inch direct-projection roentgenograms. These lesions may consist of—</p> <p>(a) Calcified residues of lesions of the intrathoracic lymph nodes, provided none of these exceeds an arbitrary limit of 1.5 cm. in diameter and the total number of such lesions does not exceed five.</p> <p>(b) Calcified lesions of the pulmonary parenchyma, provided the total number of these does not exceed ten; and one of these may equal but not exceed 1 cm. in diameter; but none of the remainder may exceed 0.5 cm. in diameter. In the roentgenogram such calcified lesions should appear isolated, sharply circumscribed, homogeneous, and dense.</p>	<p>No change.....</p> <p>(a) No change.....</p> <p>(b) Calcified lesions of the pulmonary parenchyma, provided the total number of these does not exceed ten. One of these may equal but not to exceed 1 cm. in diameter, but none of the remainder may exceed 0.5 cm. in diameter. In the roentgenogram such calcified lesions should appear isolated, sharply circumscribed, homogeneous, and dense.</p>
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See footnotes at end of table.

TABLE 13.—*Tuberculosis*¹—Continued

	Time period in effect			
	31 Aug. 1940 ² -14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944
Acceptability				
General service— Continued		In the case of lesions as defined above and below, the history should not reveal any previous definite symptoms or clinical evidence of active pulmonary tuberculosis. In no case is a person acceptable if there is evidence of active inflammatory tuberculosis process or evidence of past or present tuberculosis cavitation. Small fibroid lesions represented in the roentgenograms as sharply demarcated strandlike or well-defined, small, nodular shadows not exceeding a total area of 5 sq. cm. provided that acceptance is deferred until subsequent examination demonstrates that the lesion is stationary and not likely to be reactivated. The minimum period of time to determine this	The above arbitrary limits of calcified lesions are set on the assumption that large and numerous lesions are more likely to be partially healed, and therefore a potential source of future recrudescence, than small lesions of limited distribution. It is recognized, however, that in some individuals calcified tuberculous lesions exceeding these limits may be present which are so well healed that the possibility of future reactivation is remote. Further consideration may be given to the acceptability of persons with calcified lesions of this type when the state of health in all other respects clearly warrants the opinion that the lesions in question are healed. In such cases the history of the ap-	The above arbitrary limits of calcified lesions are set on the assumption that large and numerous lesions are more likely to be partially healed, and therefore a potential source of future recrudescence, than small lesions of limited distribution. It is recognized, however, that in some individuals calcified tuberculous lesions exceeding these limits may be present which are so well healed that the possibility of future reactivation is remote. Further consideration may be given to the acceptability of persons with calcified lesions of this type when the state of health in all other respects clearly warrants the opinion that the lesions in question are healed. In such cases the history of the ap-

is 6 months. It must be recognized that either progression or regression of the lesion indicates instability. Clinical judgment, taking into consideration other factors including age and race, must be exercised in estimating the likelihood of reactivation. Experience indicates a greater likelihood of reactivation of a lesion that appears to be stable in persons under 25 years of age than in older persons. ³	<p>applicant and his age, as well as the character of the lesions as seen in X-ray films, provide criteria for estimating the probability of complete arrest of the tuberculous process. If there is no history of active tuberculosis or symptoms which might be interpreted as evidence of this disease and if the applicant is more than 25 years of age, and if finally the calcified lesions seen are dense and discrete in character and not hazy or irregular in outline, such lesions may be considered as not prejudicial to future health. In these cases, the applicant may be accepted provided the report of physical examination and the chest X-ray films have been reviewed and acceptance has been recommended by a medical examiner specially qualified in the diagnosis of diseases of the chest.</p>
	<p>applicant and his age, as well as the character of the lesions as seen in X-ray films, provide criteria for estimating the probability of complete arrest of the tuberculous process. If there is no history of active tuberculosis or symptoms which might be interpreted as evidence of this disease and if the applicant is more than 25 years of age, and if finally the calcified lesions seen are dense and discrete in character and not hazy or irregular in outline, such lesions may be considered as not prejudicial to future health. In these cases the applicant may be accepted provided the report of physical examination and the chest X-ray films have been reviewed and acceptance has been recommended by a medical examiner qualified in chest diagnosis.</p>

See footnotes at end of table.

TABLE 13.—*Tuberculosis* 1—Continued

Acceptability	Time period in effect			
	31 Aug. 1910 ² -14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944
General service— Continued				<p>19 Apr. 1944</p> <p>The following condition is temporarily disqualifying: Scarred fibroid or fibrocal-cific infiltrative tuber-culous lesions of the lungs represented in roentgeno-grams as sharply demar-cated, strand-like or well defined, small, nodular shadows not exceeding a total area of 5 square cm. may be accepted after de-fectment until subsequent examination clearly dem-onstrates that the lesion is stationary and not like-ly to be reactivated. The minimum period of time to determine this is 6 months. It must be re-cognized that either pro-gression or regression of the lesion indicates insta-bility. Clinical judgment, taking into consideration other factors, including age and race, must be ex-ercised in estimating the likelihood of reactivation. Experience indicates a greater likelihood of re-activation of an appar-ently stable lesion in persons under 25 years of age than in older persons.</p>

Limited service. Nonacceptable...	[No standards] Tuberculosis of lungs or tracheobronchial lymph nodes, except as defined in general service.	[No standards] No change.....	[No standards] No change.....	[No standards] Tuberculosis of lungs or tracheobronchial lymph nodes, except as defined in general service and below. Scattered infiltrative tuberculous lesions of the lungs, except that small fibroid or calcified lesions represented in roentgenograms as sharply demarcated strand-like or well defined, small, nodular shadows not exceeding a total area of 5 square cms. may be accepted after dekrment until subsequent examination demonstrates that the lesion is stationary and not likely to be reactivated. The minimum period of time to determine this is 6 months. It must be recognized that either progression or regression of the lesion indicates instability. Clinical judgment, taking into consideration other factors, including age and race, must be exercised in estimating the likelihood of reactivation. Experience indicates a greater likelihood of reactivation of a lesion that appears to be stable in persons under 25 years of age than in older persons.	[No standards] Tuberculosis of the lungs or tracheobronchial lymph nodes except as defined in general service. Small infiltrative tuberculous lesions, unless of sharply defined linear or nodular appearance on roentgenograms, as described in general service paragraph, are disqualifying even though involving a total area of less than 5 square cms. and apparently stable over a period of 6 months.
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See footnotes at end of table.

TABLE 13.—*Tuberculosis*¹—Continued

Acceptability	Time period in effect				
	31 Aug. 1940 ² –14 Mar. 1942	15 Mar.–14 Oct. 1942	15 Oct. 1942–21 Jan. 1943	22 Jan. 1943 ³ –18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Fibrinous or serofibrinous tuberculous pleuritis, and pleurisy with effusion of unknown origin. (Inasmuch as pleurisy, with or without effusion, is a very frequent manifestation of early tuberculosis, examining physicians should examine with the greatest care registrants who have apparently recovered from pleurisy.)	Fibrinous or serofibrinous tuberculous pleurisy, and serofibrinous pleurisy of unknown origin. Inasmuch as pleurisy, with or without effusion, is a very frequent manifestation of active tuberculosis, all persons who have apparently recovered from pleurisy should be examined with the greatest care. Chronic fibrous pleurisy sufficient to cause marked retraction of the chest wall and of the mediastinal organs or to cause a density in the roentgenogram which completely obscures a considerable section of the pulmonary markings should be considered disqualifying.	No change.	No change.	Fibrinous or serofibrinous tuberculous pleurisy, and serofibrinous pleurisy, of unknown origin. Inasmuch as pleurisy, with or without effusion, is a frequent manifestation of active tuberculosis, all persons who have apparently recovered from pleurisy will be examined with the greatest care. Authenticated history of pleural effusion of unknown origin within the last 5 years; chronic fibrous pleurisy sufficient to cause marked retraction of the chest wall and of the mediastinum or to cause a density in the roentgenogram which completely obscures a considerable section of the pulmonary fields.

¹ Extracted from MR (Mobilization Regulations) No. 1-9, section XIII, "Lung and Chest Wall."² Mobilization Regulations No. 1-9, dated as per initial date of each column head unless otherwise indicated.³ Changes No. 1, MR 1-9, 15 Oct. 1942.

TABLE 14.—*Defects of the heart, blood vessels, and circulation*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-2-18 Apr. 1943	19 Apr. 1944
General service	A pulse rate of 100 or over which is not persistent.	A pulse rate of 100 or over which is not persistent and not due to paroxysmal tachycardia.	No change	No change	No change.
	A pulse rate of 50 or under which is proved to be the natural pulse rate of the registrant or to be temporary or due to the use of drugs.	No change	No change	A pulse rate of not lower than 50 per minute.	No change.
	Sinus irregularity.	Sinus arrhythmia	No change	No change	No change.
	Elevation of blood pressure from excitement, proved to be temporary.	No change	No change	No change	No change.
Limited service	Neurocirculatory asthenia, if mild in degree.	No change	No change	No change	Heart murmurs slight to moderate deviations from the norm. Interpretation must be based on cumulative evidence. ³ No change.
Nonacceptable	There are no cardiovascular criteria to warrant initial selection for limited service.	No change	No change	No change	No change.
	Circulatory failure evidenced by definite symptoms, such as combination of breathlessness, cyanosis and edema.	Circulatory failure evidenced by definite symptoms, such as undue breathlessness, pain, or evidence of congested failure (engorged neck veins, enlarged liver, edema as well as dyspnea).	No change	No change	No change.

See footnotes at end of table.

TABLE 14.—*Defects of the heart, blood vessels, and circulation—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1943	19 Apr. 1944
Nonacceptable— Continued	Hypertrophy and dilatation of the heart evidenced by displacement of the apex impulse to the left of the midclavicular line or below the sixth rib, and of a heaving or diffuse character.	Hypertrophy and/or dilatation of the heart evidenced by displacement of the apex impulse to the left of the midclavicular line or below the sixth rib, and of a heaving or diffuse character, or by X-ray evidence.	No change.	No change.	No change.
	A persistent heart rate of 100 or over when this is proved to be persistent in the recumbent posture and on observation and reexamination over a sufficient period of time.	No change.	No change.	No change.	A persistent heart rate of 100 or over when this is proved to be persistent in the recumbent posture and on observation and reexamination over a sufficient period of time, unless in the opinion of the medical examiner, the increased cardiac rate is due to psychic reaction and not secondary to any disease condition, including infection.
	Paroxysmal tachycardia.	No change.	No change.	No change.	Paroxysmal tachycardia, if recurrent and disabling.
	Heart block. Any serious disturbance of rhythm such as auricular fibrillation.	No change. No change.	No change. No change.	No change. No change.	No change. No change.
	Valvular disease. Congenital heart disease. Persistent blood pressure at	No change. No change. No change.	No change. No change. No change.	No change. No change. No change.	No change. No change. Persistent blood pressure at

rest above 150 mm. systolic, or above 90 mm. diastolic, unless in the opinion of the medical examiner the increased blood pressure is due to psychic reaction and not secondary to renal or other systemic disease.	No change.....	No change.....	No change.....	rest above 150 mm. systolic or above 90 mm. diastolic. If the blood pressure reading is somewhat (10-20 mm.) above 150 mm. systolic on the first reading, it should be repeated after ½ hour's rest recumbent.
Thrombophlebitis of one or more extremities if there is a persistence of the thrombus or any evidence of obstruction of circulation in the involved vein or veins.	No change.....	No change.....	No change.....	No change.
Other abnormalities of the peripheral vascular system, including large varicose veins, Raynaud's disease, Buerger's disease (thromboangitis obliterans) erythromalgia, and arteriosclerosis of the leg vessels. In doubtful cases special tests should be employed.	No change.....	No change.....	No change.....	No change.
Aneurysm of any vessel.	No change.....	No change.....	No change.....	No change.
Pericarditis.....	No change.....	No change.....	No change.....	No change.
Acute endocarditis.....	No change.....	No change.....	No change.....	Endocarditis.
Angina pectoris clearly due to coronary insufficiency.	True angina pectoris.....	True angina pectoris clearly due to coronary insufficiency.	No change.....	True angina pectoris.
Coronary thrombosis.....	No change.....	No change.....	No change.....	Authenticated history of coronary thrombosis, and/or myocardial infarction.
Neurocirculatory asthenia (effort syndrome), unless mild.	Neurocirculatory asthenia (effort syndrome), unless very mild. ³	No change.....	No change.....	No change.
	Orthostatic hypotension or tachycardia.			Orthostatic hypotension or tachycardia.
				Acute rheumatic fever, or verified history.

¹ MIR (Mobilization Regulations) No. 1-9, dated as per initial column head unless otherwise indicated.

² Changes No. 1, MIR 1-9, 15 Oct. 1942.

³ A digest of discussion found in source document.

TABLE 15.—*Defects of the abdominal organs and wall*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service.	Abdominal scars due to surgical operation or accident which show no hernial bulging.	No change.	No change.	No change.	No change.
	Scar pain when found not associated with any disturbance of function of abdominal wall or contained viscera, unless malingering is definitely excluded.	Scar pain when found not associated with any disturbance of function of abdominal wall or contained viscera.	No change.	No change.	No change.
	Achylia gastrica, unless associated with a disqualifying disease.	No change.	No change.	No change.	No change.
	Complaint of weak stomach, indigestion, dyspepsia, constipation, belching, vomiting, and various other types and degrees of abdominal discomfort which are proved by examination not to be associated with organic disease, by the absence of the usual objective symptoms and signs and by such laboratory tests as may be employed, provided psychiatric examination reveals no disqualification.	Complaint of "weak stomach," indigestion, dyspepsia, constipation, belching, vomiting and various other types and degrees of abdominal discomfort unless proved to have an organic basis by a carefully elicited history, physical examination and such laboratory tests as may be employed or by a trustworthy medical record from a competent physician or clinic, provided psychiatric examination reveals no disqualification.	Complaint of "weak stomach," indigestion, dyspepsia, constipation, belching, vomiting, and various other types and degrees of abdominal discomfort unless proved to have an organic basis by a carefully elicited history, physical examination, and such laboratory tests as may be employed or by a trustworthy medical record from a competent physician or clinic, provided neuropsychiatric examination reveals no disqualification.		

Limited service--	Blood in stools, if proved to be due to slight defects, such as fissures of the anus, small hemorrhoids, or superficial small ulcers of the rectum.	No change-----	Blood in stools, if proved to be due to slight defects, such as shallow fissures of the anus, small hemorrhoids, or superficial small ulcers of the rectum.	No change-----	No change.
	Mild enlargement of the liver unassociated with other objective evidence of disease of the liver or other organs.	No change-----	No change-----	No change-----	No change.
	Splenic enlargement of mild degree unassociated with evidence of other disqualifying disease.	No change-----	No change-----	No change-----	No change.
	Small benign tumors of the abdominal wall.	No change-----	No change-----	No change-----	No change.
	Intestinal parasites or their eggs in the stools.	No change-----	No change-----	No change-----	No change.
	Internal and external hemorrhoids if mild in degree.	No change-----	Relaxed inguinal ring provided there is no hernial sac present.	No change-----	No change.
			Hernia, small umbilical (patent umbilical ring).	No change-----	No change.
			History of cholecystectomy provided there are no residual disqualifying sequelae.	No change-----	No change.
	Unless the degree of disability is obviously disqualifying: Hernia--inguinal, femoral, umbilical, and post-operative. Large benign tumors of the abdominal wall. Internal and external hemorrhoids moderately severe, if remediable.	Unless the degree of disability is obviously disqualifying: Hernia--inguinal, femoral, umbilical, or post-operative, if remediable by surgical treatment. ³ Large benign tumors of the abdominal wall. ³ Internal and external hemorrhoids, moderately severe, if remediable. ³ Single fistula in ano if careful examination excludes the presence of tuberculosis. ³	Unless the degree of disability is obviously disqualifying: Authentic history of gastric or duodenal ulcer, provided there is a trustworthy history of freedom from activity during the past 5 years and provided that gastrointestinal X-ray made at the time of examination is negative. Large benign tumors of the abdominal wall. Internal and external hemorrhoids, moderate.	There are no defects of the abdominal organs or wall which warrant initial selection for limited service.	Hernia--inguinal, which has not descended into the scrotum; hernia--femoral. There are no other defects of the abdominal organs or wall to warrant initial selection for limited service.

See footnotes at end of table.

TABLE 15.—*Defects of the abdominal organs and wall—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-11 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
Nonacceptable	Inoperable hernia	No change	Hernia, inguinal, femoral or postoperative. Umbilical hernia, if moderate or large in size.	No change	Hernia, inguinal, which has descended into the scrotum; recurrent, postoperative; ventral; umbilical, if moderate or large in size.
	Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures.	Surgical operations for gastric duodenal ulcer. Operations on the gall bladder and operations for intestinal obstruction.	Surgical operations for gastric or duodenal ulcer.	No change	Authenticated history of surgical operations for gastric or duodenal ulcer.
	Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures or authentic medical history.	Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures or authentic medical history.	Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures or authentic medical history; also authentic history of gastric or duodenal ulcer with activity within the past 5 years.	Ulcer of the stomach or duodenum, if diagnosis is confirmed by the usual laboratory procedures or authentic medical history; also authentic history of gastric or duodenal ulcer.	No change.
	Obstruction of the bowel due to organic disease.	No change	Intestinal obstruction of any kind.	No change	Authenticated history of true intestinal obstruction of any kind.
	Irreducible sinuses of the abdominal wall communicating with the hollow viscera.	Irreducible sinuses of the abdominal wall.	Sinuses of the abdominal wall.	No change	No change.
	Irreducible stricture of the rectum.	No change	Stricture of the rectum	No change	Stricture or prolapse of the rectum.
	Multiple fistulae of the anus.	Multiple fistulae in ano	Fistula in ano.	No change	No change.
	Schistosomiasis	No change	No change	No change	No change.

Enlargement of the spleen associated with leukemia, Hodgkin's disease, splenic anemia, or other disqualifying disease; great enlargement of the spleen from any cause.	No change.	No change.	No change.	Enlargement of the spleen associated with leukemia, Hodgkin's disease, splenic anemia, or other disqualifying disease; great enlargement of the spleen from any cause.
Great enlargement of the spleen from any cause.	No change.	No change.	No change.	External hemorrhoids sufficient in size to produce marked symptoms. Internal hemorrhoids if large or accompanied by hemorrhage, or protruding intermittently or constantly.
Large internal and external hemorrhoids associated with prolapse of the rectum.	No change.	No change.	No change.	
Paralysis of the sphincter associated with the incontinence of feces.	No change.	No change.	No change.	Megacolon, diverticulitis, ileitis, and ulcerative colitis. Acute or chronic cholecystitis with or without cholelithiasis, if diagnosis is confirmed by usual laboratory procedures or authentic medical history.
	No change.	No change.	No change.	Splenectomy for any cause other than trauma or congenital hemolytic icterus. Cirrhosis of the liver.
Hydatids of the liver.	No change.	No change.	No change.	

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Changes No. 1, MR 1-9, 15 Oct. 1942.

³ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 16.—*Defects of the genitourinary organs*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service.	Bed wetting, if mild in degree.	History of bed wetting, unless substantiated by physician's affidavit or by other acceptable documentary evidence.	No change.		
	Albuminuria with or without casts which is proved by observation and repeated examinations to be temporary in character.	Mild albuminuria with or without casts which is proved by observation and repeated examination to be temporary in character or orthostatic in type.	No change.	No change.	No change.
	Absence of one testicle due to removal or atrophy.	Absence of one testicle unless removed on account of malignant disease or tuberculosis.	No change.	No change.	No change.
	Undescended testicle which lies in the abdominal cavity.	No change.	No change.	No change.	No change.
	Acute cystitis which has proved to be of a temporary character by observation and repeated examination over a period not to exceed 6 weeks.	No change.	No change.	No change.	No change.
	Phimosis with or without adhesions of the mucous surfaces, if removable.	Phimosis with or without adhesions of the mucous surfaces.	No change.		Phimosis.
	Benign warts and other benign growths of the glans penis and of the prepuce.	No change.	No change.		
	Amputation of the penis if a sufficient amount of the organ remains so as not to interfere with the function of micturition.	No change.	No change.		

Limited service...	Varicocele of moderate size.	No change.	No change.	No change.	No change.
	Hydrocele of moderate size.	No change.	No change.	No change.	No change.
	Stricture of the urethra, unless severe and irremediable.	Epispadias or hypospadias, if mild in degree.	No change.	No change.	No change.
	Benign tumor of the testicles.	History of unilateral renal calculus with freedom from symptoms for the past 3 years and if the X-ray is negative for calculi.	History of unilateral renal calculus with freedom from symptoms and if the X-ray is negative for calculi.	No change.	No change.
Nonacceptable...	Cystitis, subacute or chronic, if deemed remediable.	No change.	Stricture of the urethra, unless severe.	No change.	No change.
	Varicocele, if large.	Cystitis, subacute, if deemed remediable. ³			
	Hydrocele, if large and considered irremediable to a degree which would qualify for general service, but would permit limited service.	No change. ³			
	Floating kidney.	Hydrocele, if large. ³			
Nonacceptable...	Undescended testis which lies within the inguinal canal.	No change.	No change.	No change.	No change.
	Removal of one kidney, the remaining one being healthy.	No change.	No change.	No change.	No change.
	Bed wetting, if more than mild in degree.	Removal of one kidney unless due to malignant disease, renal calculus, or tuberculosis, the remaining kidney being healthy.			
	Chronic nephritis.	No change.	Acute or chronic nephritis.	No change.	No change.
	Irremediable stricture of the urethra, unless of slight degree so as to be of no pathological significance.	No change.	Stricture of the urethra, severe.	No change.	No change.

See footnotes at end of table.

TABLE 16.—*Defects of the genitourinary organs—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-2-18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Urinary fistula or incontinence.	Urinary fistula or incontinence due to organic disease.	Urinary fistula or incontinence.	No change.	No change.
	Surgical kidney with or without renal calculus.	No change.	No change.	No change.	Acute or chronic infections of the kidney.
	Irreducible pyelitis.	Chronic pyelitis.	No change.	No change.	No change.
	Hydronephrosis or pyonephrosis.	No change.	No change.	No change.	No change.
	Tumors of the kidney or bladder.	Tumors of the kidney, bladder or testicle.	No change.	No change.	No change.
	Acute nephritis if moderately severe and persistent after 1 month's observation.	Acute nephritis, if persistent after 1 month's observation.	No change.	No change.	No change.
	Chronic cystitis associated with calculi or with retention of urine caused by stricture of the urethra or by disease of the central nervous system.	Chronic cystitis.	No change.	No change.	No change.
	Amputation of the penis if the resulting stump is insufficient to permit normal function of micturition.	No change.	No change.	Amputation of the penis.	No change.
	Hermaphroditism.	No change.	No change.	No change.	No change.
	Hypertrophy of the prostate gland of sufficient degree to cause retention of the urine.	Hypertrophy of the prostate gland.	No change.	No change.	Hypertrophy of the prostate gland with urinary retention.

Epispadias or hypospadias when urine cannot be voided in such a manner as to avoid soiling of clothing or surroundings, or when accompanied by evidence of chronic infection of the genitourinary tract.	No change.....	No change.....	No change.....	No change.
Bed wetting, if substantiated by physician's affidavit or by other acceptable documentary evidence.	No change.....	No change.....	No change.....	No change.
Substantiated history of unilateral renal calculi in preceding 3 years or bilateral renal calculi at any time.	The presence of renal calculus, or a substantiated history of bilateral renal calculi at any time.	No change.....	No change.....	No change.
	Varicocele, if large.....	No change.....	No change.....	No change.
	Hydrocele, if large.....	Undescended testicle which lies within the inguinal canal.	No change.....	No change.
		Absence of one kidney.....	No change.....	No change.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Changes No. 1, MR 1-9, 15 Oct. 1942.

³ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 17.—*Veneral diseases* ¹

Acceptability	31 Aug. 1940 ²⁻¹⁴ Mar. 1942	Time period in effect		
		15 Mar.—14 Oct. 1942	15 Oct. 1942—18 Apr. 1944	19 Apr. 1944
General service—	<p>Veneral disease in communicable stage and without incapacitating complications will be accepted.</p> <p>Gonorrhea, acute or chronic.-----Deleted and substituted therefor: Veneral disease without contagious or disabling manifestations. WD Cir. 110, 4 Oct. 1940.</p> <p>Syphilis with remediable manifestations except cerebrospinal, cardiovascular, or visceral syphilis. Chancreoids and the resulting infections of the lymph glands of the groin.</p> <p>All above entries deleted and the following substituted: . . . defects . . . deleted . . . will be regarded as causes for rejection by Army medical examiners until there has been recovery without disqualifying sequelae. Medical examiners will reject all men who are in need of hospitalization and all those who by reason of physical defects are considered unfit for early participation in training activities. WD Cir. 110, 4 Oct. 1940 and WD Cir. 117, 18 Oct. 1940.</p>	<p>Gonorrhea, uncomplicated, acute or chronic. (Acceptance of individuals with uncomplicated gonorrhea by Army examining boards at the initial examination will be deferred until facilities have been provided for their care and instructions for their acceptance have been issued by the War Department.)</p> <p>Syphilis, adequately treated-----</p>	<p>Gonorrhea, uncomplicated, acute or chronic; syphilis, except cardiovascular, cerebrospinal, or visceral syphilis; uncomplicated chancreoid. (Acceptance of individuals with these conditions by Army examining boards at the initial examination will be deferred until facilities have been provided for their care and instructions for their acceptance have been issued by the War Department.) ³</p>	<p>Gonorrhea, uncomplicated, acute or chronic.</p> <p>Syphilis, except cardiovascular, cerebrospinal, or visceral.</p> <p>Chancreoid, uncomplicated.</p>

Limited service...	Added per WD Cir. 117, par. 2d dated 18 Oct. 1940: Acute or chronic venereal diseases, including latent syphilis, except cardiovascular, cerebrospinal, and visceral syphilis.	Cases of gonorrhea with complications, chancroid infection, granuloma inguinale and lymphoma granuloma venereum. ⁴	[No standards.]	There are no venereal disease criteria to warrant initial selection for limited service.
Nonacceptable...	Gonorrheal arthritis which is of itself disqualifying. Cardiovascular, cerebrospinal, and visceral syphilis. Late syphilis affecting the cerebrospinal or cardiovascular systems or the viscera.	Syphilis other than adequately treated cases of syphilis as set forth in general service and cardiovascular, cerebrospinal, and visceral syphilis.	No change.	No change.
		Gonorrheal arthritis	No change.	No change.
		No change	Granuloma inguinale Lymphogranuloma venereum	No change. Lymphogranuloma venereum (active). Other complications of gonorrhea, including acute prostatitis, seminal vesiculitis, and epididymitis.

¹ The data comprising the first three columns of this table were extracted from the section entitled "Genito-Urinary Organs and Venereal Diseases," in the source documents.

² MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

³ Radiogram, T.A.G. to all Svc Comds, dated 10 Dec. 1942, directed the acceptance of these individuals to the extent of local facilities.

⁴ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 18.—*Defects of the endocrine and metabolic systems*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
General service--	Goiter if unassociated with pressure or toxic symptoms, provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.	Simple colloid goiter provided the enlargement of the thyroid will not interfere with the wearing of a uniform or military equipment.	No change.	No change.	No change.
	Prödlieb's syndrome, if very mild in degree.	No change.	No change.	No change.	No change.
	Hypothyroidism without myxedema, if not severe or resistant to cure.	Hypothyroidism, if mild.	No change.	No change.	No change.
	Acromegaly if not severe or associated with symptoms other than the bony changes.	No change.	No change.	No change.	No change.
	Glycosuria, if transient or renal in type, provided acceptance is deferred until the possible existence of diabetes mellitus is excluded.	Glycosuria, if transient in type, provided acceptance is deferred until the possible existence of diabetes mellitus and renal glycosuria is excluded.	No change.	No change.	No change.

Pellagra, beriberi, scurvy, and other nutritional deficiencies, if remediable by correction of diet, and not severe.

Deleted and the following substituted: . . . defects . . . will be regarded as causes for rejection by Army medical examiners until there has been recovery without disqualifying sequelae. Medical examiners

Limited service.	will reject all men who are in need of hospitalization, and all those who by reason of physical defects are considered unfit for early participation in training activities, WD Cir. 110, 4 Oct. 1940.	No change.	No change.	No change.	No change.
	Fröhlich's syndrome, if moderate in degree.	Pellagra, beriberi, scurvy, and other nutritional deficiencies, if mild and remediable by correction of diet. ³	No change.	No change.	Pellagra, beriberi, scurvy, sprue, and other nutritional deficiencies, if mild and remediable by diet and appropriate treatment.
	Renal glycosuria, provided the renal character of the condition has been clearly shown by appropriate laboratory tests.	No change.	No change.	No change.	No change.
Nonacceptable.	Toxic goiter or thyrotoxicosis (goiter with definite pressure symptoms or so large in size as to interfere with wearing a uniform or military equipment).	No change.	No change.	No change.	No change.
	Cretinism with imbecility or dwarfism.	No change.	No change.	No change.	Cretinism.
	Myxedema.	No change.	No change.	No change.	Myxedema, spontaneous or postoperative.
	Gigantism or acromegaly, if markedly disfiguring or if associated with other symptoms of severe pituitary dysfunction.	No change.	No change.	No change.	Gigantism or acromegaly.
	Fröhlich's syndrome, if severe.	No change.	No change.	No change.	No change.
	Hyperparathyroidism and hypoparathyroidism, unless mild in degree.	Hyperparathyroidism and hypoparathyroidism when the diagnosis is supported by adequate laboratory studies.	No change.	No change.	No change.
	Addison's disease.	No change.	No change.	No change.	No change.

TABLE 18.—*Defects of the endocrine and metabolic systems—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Diabetes mellitus, diabetes insipidus.	No change	No change	No change	No change.
	Avitaminoses which are severe or not readily remediable, or in which permanent pathological changes have been established.	Nutritional deficiency diseases which are severe or not readily remediable or in which permanent pathological changes have been established.	No change	No change	No change.
	Gout.	No change	No change	No change	No change.
	Simmond's disease.	No change	No change	No change	Simmond's disease.
	Cushing's syndrome.	No change	No change	No change	Cushing's syndrome; other diseases due to a disorder of the pituitary gland.
		Hyperinsulinism when established by adequate investigation and if regarded by the examiners as of sufficient degree to disqualify for military service.	No change	No change	No change.
			Renal glycosuria.	No change	Persisting glycosuria.

¹ MR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² Changes No. 1, MR 1-9, 15 Oct. 1942.

³ Certain disqualifying defects which might be remediable and which if corrected would warrant acceptance of the individual concerned for general military service. MR 1-9, 15 Mar. 1942, par. 4a(2)(a).

TABLE 20.—*Mental and nervous disorders*

Acceptability	31 Aug. 1940-14 Mar. 1942	Time period in effect			
		15 Mar. ² -14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943 ² -18 Apr. 1944	19 Apr. 1944
General service.	<p>Registrants who appear to have normal understanding, whose speech can be understood, who have no definite signs of organic disease of the brain, spinal cord, or peripheral nerves, and who are otherwise mentally and physically fit.</p> <p>Muscular tremors of moderate degree, unless malingering is definitely excluded.</p>	A healthy nervous system as manifested by absence of signs of disease of the brain, spinal cord, cranial and peripheral nerves.	No change.	No change.	No change.
		Certain variations clearly within physiological limits such as minor tremors. Inconsequential paralyses resulting from old poliomyelitis or lesions of the peripheral nerves not likely to interfere with military duty.	No change.	No change.	No change.
		The range of personalities usually classed as "normal". Evidence of ability to get along tolerably with family, friends, casual acquaintances, authorities in school or society, employers and fellow workers. Conventional attitude toward sexual problems. Sufficient intelligence to graduate from grammar school unless prevented by external circumstances. Sufficient stability and ability to obtain and keep, or at least to seek, a job.	No change.	No change.	No change.

Limited service...	Stuttering and stammering of a degree disqualifying for general military service but which has not prevented registrants from successfully following a useful vocation in civil life.	Marginal intelligence if compensated for by better than average stability. Men whose speech can readily be understood, even though there is a moderate degree of stuttering or stammering, if otherwise, physically, intellectually, and emotionally fit.	No change.....	No change.....	No change.
	Tremors of such marked degree that they disqualify for general military service but have not prevented the registrants from following a useful vocation in civil life.	Individuals who present muscular tremors or local paralysis due to old poliomyelitis or nonprogressive disease of the spinal cord or peripheral nerves of such marked degree that they disqualify for general military service but have not prevented the individual from successfully following a useful vocation in civil life.	No change.....	No change.....	No change.
	Individuals with local paralysis due to old poliomyelitis or nonprogressive disease of the peripheral nerves of such marked degree that they disqualify for general military service but have not interfered with locomotion and have not prevented the individual from successfully following a useful vocation in civil life are acceptable for limited service.	Individuals with local paralysis due to old poliomyelitis or nonprogressive disease of the peripheral nerves of such marked degree that they disqualify for general military service but have not prevented the individual from successfully following a useful vocation in civil life.	No change.....	No change.....	No change.
Nonacceptable...	Syphilis of central nervous system.	Moderate degrees of compulsiveness or obsessiveness. Neurosyphilis of any form (general paresis, tabes dorsalis, meningovascular syphilis).	No change.....	No change.....	No change.

See footnotes at end of table.

TABLE 20.—*Mental and nervous disorders—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar.-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Epilepsy	The epilepsies	No change	No change	Puroxysmal convulsive disorders and disturbances of consciousness (grand mal, petit mal and psychomotor attacks, syncope, narcolepsy, migraine).
	Chronic essential chorea	Paralysis agitans, postencephalitic syndrome, athetosis, chorea, spasmodic torticollis, familial ataxia.	No change	No change	Residuals of infection (medicate and severe residuals of poliomyelitis, meningitis and abscesses, paralysis agitans, postencephalitis syndrome, Sydenham's chorea).
	Postencephalitis syndrome— Posttraumatic cerebral syndrome.	No change	No change	No change	Residuals of trauma (residuals of concussion or severe cerebral trauma, posttraumatic cerebral syndrome, incapacitating severe injuries to peripheral nerves).
	Multiple sclerosis	Multiple sclerosis, encephalomyelitis.	No change	No change	Degenerative disorders (multiple sclerosis, encephalomyelitis, cerebellar and Friedrich's ataxia, athetosis, Huntington's chorea, muscular atrophies, and dystrophies of any type; cerebral arteriosclerosis).
	Muscular atrophies and dystrophies which are obviously disqualifying.	Diffuse muscular atrophies or dystrophies of any type (with the exception of extremely mild residuals of poliomyelitis).	No change	No change	

Cerebral arteriosclerosis.....	Cerebral arteriosclerosis, vascular accidents of all types. Other chronic degenerative diseases of the brain and spinal cord. Chronic or recurrent neuritis or neuralgia of an intensity sufficient to prevent the individual from following a useful vocation in civil life. Multiple neuritis.	No change.....	No change.....	No change.....
Neuritis or neuralgia which is not temporary in char- acter and which has pro- gressed to such a degree as to prevent the registrants from following a useful vocation in civil life. Brain tumors.....	Spina bifida, if associated with neurological mani- festations. Meningocele, even if uncomplicated.	No change.....	No change.....	Peripheral nerve disorder (chronic or recurrent neuritis or neuralgia of an intensity which is period- ically incapacitating, multiple neuritis, neuro- fibromatosis). Miscellaneous disorders (tics, spasmodic torticollis, spasms, brain and spinal cord tumors, operated and unoperated, cerebrovascular disease, congenital mal- formations, including spina bifida if associated with neurological manifestations and meningocele even if un- complicated, Meniere's disease). No change. No change.
Imbecility..... Psychoneuroses and constitu- tional psychopathic states providing the diagnosis is clearly established and in the opinion of the medical examiner precludes the successful performance of military duty.	Mental deficiency..... Psychopathic personality.....	No change..... No change.....	No change..... No change.....	No change. No change.

See footnotes at end of table.

TABLE 20.—*Mental and nervous disorders—Continued*

Acceptability	Time period in effect				
	31 Aug. 1940-14 Mar. 1942	15 Mar. 2-14 Oct. 1942	15 Oct. 1942-21 Jan. 1943	22 Jan. 1943-18 Apr. 1944	19 Apr. 1944
Nonacceptable— Continued	Sexual perversion.....	No change.....	No change.....	No change.....	
	Hysterical paralysis.....	Major abnormalities of mood.....	No change.....	No change.....	
	Paraplegia or hemiplegia.....	Psychoneurotic disorder.....	No change.....	No change.....	Psychoneurosis.
		Prepsychotic, postpsychotic and schizophrenic personalities.....	No change.....	No change.....	Psychosis.
	Syringomyelia.....				
	Chronic alcoholism.....	Chronic alcoholism and drug addiction.....	No change.....	No change.....	Alcoholism and drug addiction.
	Drug addiction, including the habitual use of opium and its derivatives and cocaine. Stammering to such a degree that the registrant is unable to express himself clearly or to repeat commands. Insanity.....	No change.....	No change.....	No change.....	Primary behavior disorder of sufficient degree to indicate predisposition to more serious disorders.

¹ MTR (Mobilization Regulations) No. 1-9, dated as per initial date of each column head unless otherwise indicated.

² As of 15 Mar. 1942, the section of the published standards relating to the examination of registrants for mental and nervous disorders was divided into sections entitled "Neurological Disorders" and "Psychoses, Psychoneuroses, and Personality Disorders." To simplify the comparison of standards the two sections were combined to compile this table.

³ Changes No. 1, MTR 1-9, 15 Oct. 1942.

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